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WORK FOR THE MONTH.

MARCH.

All have advanced far enough into the current year, for those engaged in the pursuits of agriculture, to have completed their arrangements, or at all events, to have formed the outlines of their intended operations for the season. These outlines, one would hope, have, doubtless, been well considered—been planned in view of the actual *force* and *means* at command of the several parties who have adopted them. If such be the case, a larger field of operations have not been marked out than each individual has the ability to carry into effect. This is the view of the case, which a rational consideration of human actions would induce us to adopt—this is the view, which all our sympathies, all our aspirations, would incline us to hope for. But unfortunately, these natural conclusions are not justified by the practice of many engaged in agriculture. The desire of stretching their culture over broad fields, without the ability to manure, or the force to cultivate, is among the besetting evils of our country. We call it an evil, because, the natural resulting consequence, is the deterioration of the soil. Let us select for remark, a single crop. The *corn crop*, for instance. A corn-grower has a field of 100 acres,—after summing up the amount of manure he has for this crop, he finds that he has only enough to *fully* manure 25 acres; but concludes to spread it sparsely over the 100 acre field; now the consequence is, that the corn being a voracious feeder, and finding itself limited to one fourth the food it ought to have, does its best, but all to no avail; its existence is a sickly one; and long before the period arrives when its grain has to be formed, *and formed too from the nutriment of the earth*, it absolutely finds itself without food, and as a natural result, its ears are badly filled at best, and some not filled at all. So that, in fact, the grower, by expanding his cultivation so far beyond his ability for doing justice, is absolutely a loser in a double sense. In the first place, he has injured his land, and in the second place, got less corn off the hundred acres, than he would have gotten from the 25 acres, had he confined his operations to that quantity. Our policy would be, to plant no more corn than we could both manure and tend well. By pursuing such course, we should expect to raise more corn, while we would be keeping our land in a state of gradual improvement.

We have thrown out these cursory remarks, in the hope, that by calling the subject home to the bosoms and interests of planters, they may *moot* the question, whether it is best to till a great many acres indifferently, or a fewer number well. And having effected that object, we shall look a little into the monthly detail of matters

On the Farm.

Sowing Clover Seed.—It would have been better to have sown Clover Seed on your *wheat fields* last month, than this. But, if, owing to circumstances beyond your control, your's is still unsown, you may do so any time during the current month. If we had our choice, as to the precise *time when* we would do so, we should wait until the frost was entirely out of the ground. We would then harrow the seed *lightly* in, after which we would roll the field with a heavy roller; and especially would we subject the ground to these operations, if the wheat crop showed any evidences of having been up-heaved by the contracting and expanding power of frost and heat. Great horror is entertained of pulling the wheat plants out of the ground by the teeth of the harrow:—in this horror, however, we do not indulge. The harrow will pull up many wheat plants we admit; but then most of these will be returned by the roller. The roller will not only return a great part of the roots to the earth, but will also bury many *joints* of the plants, the most of which will take root, and grow into wheat bearing plants: and thus, by the promotion of tillering, will more than compensate for any plants killed by the operation of harrowing. We believe that, for every plant pulled up by the harrow, the *roller*, by the burying of joints, will cause two other plants to be grown. This is not all; the harrowing destroys grass and weeds, acts as a cultivation to the wheat plants, and, by admitting the air into the earth, increases its temperature, and gives a fresh impulse to its growth. These are not ideal results—not mere theory—but the actual results of experience and practice.

But whether you harrow and roll your clover seed in or not, do not omit to sow it, as clover, in conjunction with lime, marl, or ashes, forms the only sure basis upon which the solid improvement of lands rest. In connection with the sowing of clover seed, we would remark, that the presence

of calcareous matter, in every soil in which clover may be grown, is absolutely necessary.

Quantity of seed.—12 lbs. of seed should be sown on every acre, and pains should be taken to distribute it evenly.

Oats.—Circulating as our journal does over a territory of thousands of miles in extent, embracing many degrees of latitude, and presenting as many climates, it is time to be saying something about getting in oats. Now the oats is a most notable and necessary grain; but we fear it is too often put in under circumstances which forbid every hope of profit. Generally speaking, it is confined to some exhausted field, whose fertility had been wasted many years before, in whose ungenial soil it finds neither bread nor meat, or if any, in such minute quantities as to be utterly insufficient for its support. Such practice should not be. The oat-crop, under favorable circumstances of soil and culture, may be made a highly lucrative one. Give it wherewith to feed upon, and it will return you its 40, 50, and 60 bushels of grain to the acre. Instances of much larger yields than either of the figures named have been realized, and, what has been done, can be done again; provided similar means be used to produce the same favorable results. In our day we have seen 2,400 bushels garnered on a 40 acre field—but again, the ground covering 20,000 corn hills produce less than 10 bushels,—the soil of the first field was in a high state of fertility, whereas the soil on which the last grew, was as devoid of every element of fertility as is a mercenary's heart of the lofty impulses of disinterested patriotism.

Better is it, in our opinion, not to sow oats at all, unless the earth in which you place the seed is such as to justify the hope of a remunerating return; for it is futile for a farmer to toil, without the prospect of reward.

Protesting, as we do, against cultivating oats on lands where there is nothing to feed the plants, it may become us to prescribe some *provisional formula*, not costly, and of easy obtainment, by which remunerating crops of oats may be secured, and this we here attempt; premising, that the quantities named of each, are for an acre of land.

1. Ten loads of stable or barn-yard manure, 1 bushel of plaster, and 2 bushels of salt.

2. Ten loads of mud, from river, creek, or marsh, mixed with 20 bushels of ashes.

3. Two hundred pounds of Guano, and one bushel of plaster, mixed together.

4. Ten loads of wood's mould and leaves, 2 bushels of salt, 5 bushels of lime, and 2 bushels of bone-dust.

5. Ten loads of mould of any kind, 10 bushels of ashes, and 2 gallons of oil.

6. Two bushels of bone-dust, 2 bushels of salt, 25 lbs. of Nitrate of Soda, 25 lbs Nitrate of Potash, and 3 gallons of oil, well mixed together.

7. Ten loads of marsh mud, and 20 bushels of lime, mixed well together.

8. Ten loads of marsh mud, or mould of any kind, 5 gallons of oil and 100 bushels of marl.

Either of the above mixtures, will bring a *good* crop of oats: if you want a *large* one, *double* the quantities. Ground manured as above, will bear being set in clover. Those fields that may be set in clover, should, in addition to the prescribed manures, have, at the time of sowing, one bushel of plaster and one bushel of salt, sown broadcast, and harrowed in with the clover seed—the other manure to be ploughed in.

With regard to Clover seed, we would sow it with every crop of small grain, whether we intended to cultivate the ground the succeeding year or not.

Preparation of the ground.—We would plough deep, and if possible, sub-soil. If we combined the two operations, we would plough 6 inches, and sub-soil as deep—If we ploughed only, we would turn the furrow at least 8 inches deep. Skimming the earth 3 or 4 inches in depth, has a two-fold operation in it—it impoverishes the soil, and makes the owner poor.

The ground should be harrowed until a fine tilth is obtained.

Seeding.—Harrow, or cultivate, the seed in, and finish by rolling.

Quantity of seed.—Two bushels of seed, per acre, is about enough for ordinary soils—though if the land be really good, 3 or 4 bushels may be very advantageously sown on an acre—these latter quantities have been most generally sown where large products have been made.

Draining.—If your marshes are such as to allow of draining, have them drained. The dirt excavated out of the ditches may, by being composted, be made into a body of the very best manure. Six bushels of ashes, mixed with a double-horse-cart load of such earth, will, in six or eight weeks, render it equal to so much stable manure. Besides which, those marshes, instead of being the abodes of snakes and frogs—instead of being so many fruitful nurseries of disease, will be the very best arable lands on your farms.

Marshes should be permitted to pass off the water after being drained, then be limed and cultivated. One hundred bushels of lime, or 200 bushels of marl, should be put on each acre, to decompose the vegetable matter, neutralize the acids, and let loose the alkalies.

Permanent Pastures.—If you have no permanent pasture for your stock, it is time that you had one,—so, therefore, go to work with energy and supply this culpable gap in your farm arrangements.

Early Turnips.—There is no crop which pays better when raised and thrown into the market early—none more readily grown, where the proper pains are taken; and few vegetables more generally relished on the table.

With regard to the time of putting them in, without *firing* upon any particular day, we will say, in the general, that they should be sown as soon as the ground is entirely free from the frost, and the soil susceptible of being put in first rate order. The sooner after this period the better, as they should be allowed an opportunity of maturing their roots before the weather becomes intensely hot.

The *best measure* for an acre of early turnips, would, possibly, be—5 double-horse-cart loads of well rotted stable or barn-yard manure, 5 bushels bone-dust, 20 bushels of ashes, 5 bushels of lime, and 2 bushels of salt. If the above cannot all be conveniently obtained, 10 loads of stable or barn-yard manure, 10 loads of marsh mud, 10 bushels of ashes, and 5 bushels lime, or 10 bushels of marl, will answer: 400 lbs. of Guano, and 1 bushel of plaster will answer; so would 10 bushels of bone-dust, 10 bushels of ashes, and 5 gallons of fish oil. Either to be mixed a few days before being used. Turnips are heavy feeders, and must have plenty of manure.

With the exception of the Guano, which should be ploughed in, the manure should be divided into

two parts, the one-half to be ploughed in, the other half to be harrowed well in, just before sowing the seed.

Preparation of the ground, &c.—Spread one-half the manure broadcast, plough it in deep, then harrow, apply the other half of the manure, harrow it in, then sow the seed, *slightly* harrow the ground, and roll.

When the plants *first come up*, sprinkle them over with fish oil, and continue to do so daily, *until the turnips get into the rough leaf.* Or you may substitute the oil, by a mixture of lime, salt, and ashes. If the latter be used, the plants must be dusted early in the morning, while the plants are wet with dew, for several mornings in succession.

As soon as the turnips begin to bottle, pass the harrow through them, for the double purpose of thinning and working them. In a few days thereafter, hoe them, thinning them at the same time, so as to stand 6 or 8 inches apart. In a week from this, give them another working with the *hoe*, and your culture of them will be at an end. At this working, sow a bushel of plaster and 2 bushels of ashes on them.

Early Potatoes.—The earlier you get your potatoes into the market, the better will they pay; therefore, so soon as the frost is out of the ground, and the earth in a condition to be ploughed, and put in fine order, get it ready, and plant your potatoes.

Soils, &c.—Grass-swards, Clover-leys, and new ground, are said to be the soils and places best adapted to the growth of potatoes. Light, loamy soils, well filled with vegetable matter, certainly grow the mealiest and best flavored roots,—though for quantity, judging from our own experience, stiff clays well worked, well manured, and well cultivated, will contend with the best of them.

If you desire to grow a large quantity, there is no crop that is cultivated to which more food must be given than the potatoe. It is a greedy, coarse, and voracious feeder. Its manure, be that what it may, must be ample in quantity, rich in quality, and calculated from its nature, to carry on, from beginning to end, a continuous supply of pabulum. There must be no balk in the gratification of the appetite of the potatoe,—whenever its hunger and thirst may be whetted into keenness, there must be no lacking in the means of indulgence:—feasting one part of its existence, and starving at another, does not suit the habitudes, and propensities of this most excellent root—privations suit not its taste or its nature—every check upon its indulgence, paralyzes its energies, and despoils it of its proportions.

Manure for an acre of land. 1. Twenty double-horse-cart loads of stable and barn-yard manure, 10 of each, 10 bushels of ashes, and 1 bushel of plaster, mixed well together: 2. The same number of loads of barn-yard manure and marsh mud—salt marsh the best—(equal quantities of each:) 3. 10 bushels of bone-dust, and 10 bushels of ashes, and 10 loads of mould of any kind, mixed intimately: 4. 10 loads of marsh mud, 5 loads of stable manure, 50 bushels of marl, and 1 bushel of plaster, mixed together. 5. 400 lbs. of Guano, 10 loads of woods mould, and 1 bushel of plaster, mixed together, would each make an excellent dressing for an acre of potatoes.

Preparation of the ground.—We hold that much depends upon the manner in which the ground is prepared. Deep ploughing, and perfect pulverization, are essentials to success; so much so, that we would invariably use the sub-soil plough as an adjunct to the other; in order that the bed of the potatoe should not only be deep and well pulverized, but dry, in order that its roots may not be unfriendly acted upon by excess of moisture. If the ground selected be a grass-sward, or cloverley, the roller should precede the harrow, to compress the furrow slices, which should be turned flat; and to avoid the disturbance of the sods, the harrow should be run lengthwise the furrows, to be followed by the roller.

Laying out the rows.—Lay off the rows from 2½ to 3 feet apart. The latter distance we prefer, as it allows us more room to work the potatoes, and more ample space for the circulation af light and air, considerations of moment in the growth of this plant.

Depth of the furrow.—The furrows should be 6 inches deep, to allow ample space for depositing the manure, inserting the setts and covering.

Manuring and Planting.—Strew the manure 2 or 3 inches in depth, in the bottom of the rows, place the setts 10 inches apart upon the top of the manure, eyes uppermost, and cover either with the plough, or hoe, as may best suit your convenience.

Preparation of the setts.—We have always been in the habit of selecting the best potatoes we could find, large in size, and of changing our seed every second year. And to so cut the setts, as to have at least two eyes to each. As we cut them we rubbed the cut part either in plaster, or ashes, so as to dry the wound, and prevent bleeding, as we considered all escape of the juice, or water, as depressing the vigor of the sett, and retarding germination. After preparing the setts thus, we spread them out on some dry place, where we permitted them to remain a week before planting them. When thus dried, they are not so liable to rot in the ground, and come up more regularly.

Time of planting.—We have already said, that the *early* planting should take place, as soon as from the absence of the frost, the ground can be ploughed and got in first rate order, and as from the immense territorial limits of our country, there are from 6 to 8 weeks difference in point of climate, it is impossible to designate any day, with more precision than is implied by the preceding remarks. As to the time of getting in the *late* crop of potatoes, we would get them in between the 20th of April and 10th of May, early planting, and early harvesting, being the only chance for avoiding the rot.

After Culture.—As soon as the potatoes begin to come up, run the harrow through them. This practice destroys weeds and grass, ensures a general stand, and serves as a cultivation to the potatoes. When the potatoes are up about 3 or 4 inches, throw a furrow from them, returning it at the same time, so as to leave a slight flat hill, and strew 4 bushels of ashes over the vines. In two weeks, plough again, increasing the size of the hill somewhat, and preserving its flatness. The weeds and grass on the rows must be relieved by hand and hoe. At this working, sow over each acre you may have in potatoes, a mixture composed of 6 bushels of ashes, 2 bushels of lime, 2 bushels of salt, and 1 of plaster. In ten days or two weeks, give a third and last working, increasing the hill a little and preserving its flatness.

In recommending top-dressing with ashes, lime,

salt, and plaster, we do not wish it to be inferred, that we do so under the impression that it will prove preventive of the rot; for we repudiate all idea of prescribing a *specific* for a disease, the cause of which nobody knows any thing about. Our object is of another kind,—in each of the substances, are to be found portions of the *inorganic* constituents which enter into the structures of the potato; for that reason, in part, we recommend them, and again, because they all act as absorbents, and will be likely to attract and husband considerable portions of aliment from the atmosphere, and thereby enable the potatoes to carry on their work of reproduction the more actively and healthfully.

Quantity of seed.—It requires from 12 to 15 bushels of potatoes to plant an acre of land, the precise quantity being pretty much governed by the variety and manner in which the setts may be cut, some kinds, from having more eyes, yielding more setts.

Artichokes.—Should you desire to plant an acre or so in Jerusalem Artichokes, to secure a supply of roots for your cows, or hogs, you should prepare your ground as soon as the frost is out of it, in the same way as for potatoes, and plant your artichoke setts. An acre will produce 5 or 600 bushels; they make excellent food, and, when once planted, will last for many years, even though you turn your hogs in to eat them. Fifteen bushels of the tubers will, cut into setts as are potatoes, plant an acre. List your land 3 ft. by 2 ft. apart, planting a sett at each intersection. Cultivate as you would corn. The stalks if cut up the beginning of October, and dried, make excellent provender for cattle: before being used they should be cut, as corn-stalks are, into inch or half inch pieces.

Root Culture.—Every farmer who takes pride in his milch cows, should plant an acre of each of the following roots—*mangel wurtzel, sugar beet, carrots, and parsnips.* With ten loads of dung well rotted, a compost of equal parts of such dung and marsh mud, or 200 lbs. of Guano, each acre, it is safe to say would grow 500 bushels of roots, a half bushel of either, cut up, and mixed with cut hay, or straw, at two meals a day, in addition to the long provender usually given, would keep the cows well in milk, enable the oxen to labor, and preserve the young stock in fine health, and encourage their growth.

It is too soon to plant these roots. but we anticipate the time, in the hope, that our friends may make the necessary preparations to enter into their culture. Next month we will give the necessary directions as to how they should be cultivated.

Repairing Fences.—Examine, and have your fences thoroughly repaired.

Bars and Gates.—Let your *bars* be substituted by good substantial gates.

Fence Sides, and Corners.—Have every bush, shrub, bramble, and briar, eradicated from your line of fencing.

Implements and tools.—Carefully overhaul every thing of the kind on your place, and have all necessary repairs made, and paint all that need it.

Pitching your Crops—manure making.—Graduate the size of your crops agreeably to your force and means of cultivation. *It is always a losing ground to put in more acres than you can manure and tend well.* Better, much better, would it be for you to detach a portion of your hands and a team, and set them to the collection of materials to form manure for next year.

There is scarcely a farm anywhere, on which might not be found the rough materials to form manure enough to enable the owner to give a dressing to his corn ground every year. These materials should be hunted up, formed into composts, and preserved from deterioration until wanted. We have so often pointed out the places where these materials are to be found, that it is almost needless to repeat them here; and we shall, therefore, content ourselves by invoking each of our friends to consider the collection of materials for manure, and the forming them into compost heaps, among the most important branches of his system of farming. Without manure, crops will grow lamentably less every year, the land will become exhausted of its fertility, and proprietors grow annually poorer: whereas, were they to adopt the making of dung-heaps as the most important branch of their system of culture, their farms would grow richer and richer, from year to year, increase in their products, and, as a consequence, bring prosperity and wealth to them.

Hauling out manure.—Get your manure early into place, and when there, don't let it waste its riches on the air. *Before removal, it should be mixed with plaster or pulverized charcoal.* One bushel of plaster, or ten bushels of charcoal, thoroughly mixed with 20 double-horse-cart loads of manure, would increase its value two-fold.

Barley.—This grain should be sown as soon as the frost is out of the ground. It requires a good rich loam. Ground that would bring 20 bushels of wheat, will bring from 30 to 40 of Barley. It is futile to attempt to grow it on *poor* land. Indeed, land of that kind should be *nursed* and fed highly, before being attempted to be cultivated. Two bushels of seed per acre, is the quantity generally sown, though 3 or 4 bushels are sometimes seeded on an acre, where the soil is rich.

Winter-killed Grain Fields.—If your fields of winter grain have been spewed up, pass a harrow over them, and then roll them. Whether injured or not by the frost, these operations would benefit them greatly.

Corn Planting.—As from the wide-spread circulation of our paper, many of our friends will be planting corn before our next issue, we take leave to say to them, that unless their ground be really rich, they should plant no corn without previously manuring their land, as it is impossible for profit to accrue without it. Two or even three barrels of corn to the acre, never did, and never will reward the corn grower. Our individual opinion is, that less than five barrels to an acre does not yield him a just remuneration for the expense of culture, rent of land, wages of hands, taxes, and a moderate profit. Without particularizing anything, we will say, that any substance which once had life, will produce life again. With this, we leave it to corn growers, to avail themselves of the materials on their estates, and such as they can procure elsewhere, to manure with.

Lime, marl, and ashes, are among the substances to be looked to, as forming the basis of any improvement to be undertaken. If the land be sandy, 10 loads of clay, made into compost with 10 loads of farm manure, will do more good than 20 of the latter alone. Marsh mud, river mud and muck, woods-mould, pine shatters, ditch scrapings, &c., composted with lime, marl, or ashes, make a reliable manure; but a bushel of plaster, 10 bushels of pulverized charcoal, or 4 bushels of salt, should be

mixed with every 20 loads. Manure thus treated, is worth more than double what other manure is, where no fixer may have been used. A few bushels of bone-dust mixed with the manure allotted for an acre, adds much to its value. Those who have fishing shores, and a seine, need not want for manure. Four thousand herrings made into compost with 20 loads of marsh mud, or muck of any kind, and 1 bushel of plaster, 10 bushels of fine charcoal, or 2 bushels of salt, is as rich a manure as any one need wish for, for an acre of land. Thus made, it is lasting.

Orchards.—If you did not do so last fall, go into your orchard, and look out for *dead* limbs, cut off with a saw all such as are dead, into sound wood, smooth the surface of the wound, and paint it with a mixture made of equal parts of *tar*, *beeswax*, and *rosin*; then prune off such branches as interlock and intercept the free passage of the air. This done, paint the bodies of the trees, and limbs, as far up as the arms can reach, with a mixture formed in the following proportions:—1 gallon of soft soap, 1 lb. flour of sulphur, and one qt. of salt. If your orchard has not been recently manured, give it a dressing comprised of rich mould from the woods, marsh mud, or ditch cleanings, 4 parts, 2 parts stable or barn-yard manure, 2 parts ashes; if you can get bone-dust, it would be advisable to mix 2 bushels with every ten loads of the compost; spread at the rate of 10 or 15 loads to the acre, and plough or harrow it in, taking care not to go so deep as to injure the roots of the trees. Now, apple trees require to be fed as well as any other plant on the farm, and cannot grow fair and luscious fruit, unless every three or four years you manure them.

When the trees first come into bloom, dust ashes, or lime, over them, for several successive mornings early, when the dew is on the leaves.

This treatment should be extended to all your fruit trees, of every kind and denomination.

If you have no orchard, plant one, and be sure to select the best fruits, and those adapted to your location. The ground you may allot for the site of your orchard should be worked this season in corn or potatoes; should be ploughed deep, subsoiled, and heavily manured.

Milch Cows.—These should be well fed, slopt, and well cared for, as this is a trying month upon them.

In-calf Cows should receive similar attention.

Young Stock.—Your young stock should receive full allowances of good hay, thrice a day, and at least one feed of chopt oats, with cut hay or straw, daily. Bones, flesh, and fat, require materials to make them out of, and if the young creatures are denied them, they will be stunted in their growth.

Working Horses, Oxen, &c.—Let these receive generous treatment—plenty of food, regularly given them; currying, and wisping with straw, night and morning, well littered beds at night, water thrice a day preceding each meal, and an ounce or two of a mixture of salt, ashes and lime, three times a week.

Sheep, and in-lamb Ewes, must be scrupulously attended to throughout this month. In addition to hay and straw, they should have allowances of roots, or meal, daily, salt always accessible, and pine boughs to browse upon once or twice a week.

Breeding Sows.—Good slops and plenty of fresh water should be given them thrice a day, regularly. Charcoal, rotten wood, and ashes should always be accessible.

Store Hogs.—Feed these, so as to keep them always growing,—don't let them suffer for water; and be sure to keep always before them charcoal, rotten wood, salt and ashes.

Poultry.—Clean out their houses, white wash them inside and out, let them have plenty of food, and fresh water, not forgetting lime, sand, ashes, and gravel.

Out-houses.—If not recently done, all these should be cleaned and white-washed.

Shade Trees—Shrubbery.—If your house is not adorned with shade trees and shrubbery, plant both, without delay. A country mansion without such sources of comfort and embellishment, presents a most gloomy spectacle. No country gentleman of taste, should fail to have his lawn or yard well stocked with shade trees, and flowering and other shrubs. Besides the appearance, which should always be looked to, they add to comfort, health, and mental enjoyment.

Tobacco Beds.—Let planters see to these. We know no better plan for promoting their interests, and putting them in the way of doing the thing up brown, than by referring them to the admirably written essays of Messrs. *Bowie*, *Jones* and *Milburn*, to be found in our last volume, and to that of Mr. *Blackistone*, which we commence in the present No. As successful tobacco growers, these gentlemen are as distinguished, as they are for those attributes of character which make men respected and beloved.

Meadows.—If your meadows are turf bound, harrow them, then sow on each acre, 2 bushels of bones, and 5 of ashes, and roll. The increase of your crop of grass will pay for your labor and money expended, in the first crop, while you will be benefitted for several years to come.

Ashes—Bones—Woollen Rags.—Have all of either of these that may accumulate on your farm, taken care of—they are rich in the food of plants.

Poultry dung.—Every pound of this, that may be properly saved, is worth as much as the same quantity of guano; therefore, have it collected, placed in a barrel, sprinkled over with plaster once a week, and kept in a dry place.

Urine, Soap-suds, dish-water.—Provide 50 loads of marsh mud, or the same quantity of any kindred substances, formed into heap at some convenient spot near your barn; on this heap, pour, weekly, the liquids named, after each saturation, sprinkle plaster, and in 3 months, your marsh mud will be a mass of fertilizing matter, equal to the best stable manure. Try the experiment, and our word for it, it will put money in your pocket. There is liquid waste enough about every farmer's house, which if properly utilized, by being composted as above advised, to make a hundred loads of good manure in a year.

WORK IN THE GARDEN.

March is upon us with its burly, drying, winds, to remind us that it is time to enter with energy upon our labors in the *garden*, so let us take counsel and go to work with a *will*, and endeavor to make our garden the example of the neighborhood.

Sowing seeds.—Select a warm border, well protected, facing the South, manure it heavily, dig the manure in carefully, turning the slices with care, so as to cover it, then rake until every clod is thoroughly reduced. Next divide it into small compartments by pressing the edge of a board down from the front to rear, then sow the following seeds,—*Early Cab-*

bage, of sorts, *Cauliflower*, *Broccoli*, *Tomatoes*, *Egg-plants* and *Lettuce*, rake them lightly in and pat down the ground with the back of your spade, so as to compress the earth down upon the seeds and thus urge forward their germination.

When the plants come up, should the ground be dry, make a barrel of *horse-dung* tea, by putting half a bushel of dung into a barrel and filling it up with water, set the barrel in the sun—this will bear being filled up three or four times; the plants should at this season be watered in the forenoon. Or you may water them with a decoction made with one pound of Guano and 10 gallons of water.

Should the plants appear sickly or become lousy, you may restore them to health and cleanliness by preparing and watering them with the following mixture, viz: tie up 4 *oz. of flour of Sulphur* and *half a gallon of soot* in a bag, put the bag in a tub and pour thereon five gallons of boiling water. Three or four waterings with this decoction will drive away the lice and induce the plants to grow vigorously. The bag containing the sulphur and soot, will bear three or four fillings up.

Early Peas.—These cannot be planted too soon after the frost is out of the ground; plant, therefore, as soon as the ground can be spaded up and got in good order. Select a warmly exposed bed, manure it well, dig in the manure and rake, then draw drills by line, North and South, with the eye of your hoe, 4 feet wide, 2 or 3 inches deep, drill in your peas tolerably thick, cover and pat the earth down. To ensure a continuous supply, drill more in every week or ten days during the month.

Cabbage and other plants in your hot bed must be aired every good day, in the middle of the day.

About the 20th of this month such plants as are large enough may be transplanted out in the open ground where they are to stand.

Beans.—Bunch beans of sorts may now be planted.

Radishes.—Prepare a bed and sow radish seed.

Spinach.—Manure, dig, and rake a bed and sow some spinach seed, thinly in drills 12 inches apart.

Carrots, Parsnips, Beets.—Select a good warm bed, manure it, dig it up and rake it, and drill in a few rows of each of the above roots. The manure should be well rotted, and the ground a deep light mould, which must be dug full a spade deep.

Small Sallading, of all kinds, should, at intervals of a week, be sown.

Celery.—Prepare a bed and sow celery seed.

Siberian Kale.—Prepare a bed and sow a small patch of these for sprouts.

Asparagus beds.—New beds of asparagus should now be planted out, and the old ones manured and dressed with well rotted manure, ashes, and salt.

Sowing Asparagus Seed.—Asparagus seed should be sown early this month.

Sowing Onions.—Prepare a bed for onions by manuring well with a compost formed of 7 parts manure and 1 of ashes; dig it in and rake, then form it into beds 4 feet wide with alleys between 12 or 18 inches wide for the convenience of weeding—draw drills 1 inch deep, 12 inches apart, drill in your seed, cover and press down the earth with the back of the rake. When the onions come up, thin them out so as to stand 4 inches apart, water them well in dry weather, and they will be good onions in August, provided you keep them clean, and don't hill the bulbs. Frequent waterings greatly increase their growth. A watering with soot, occasionally will do them much good.

Pot Herbs—Medicinal Herbs, of all kinds should now be planted out, or the seed sown.

Artichokes.—As soon as the weather is settled, uncover your old artichoke beds, and form new ones.

Red Peppers.—Sow the seed of those on a warm border.

Planting out Cabbages, Beets, &c.—Set out these for seed.

Potatoes.—You cannot get in your early potatoes too soon after the frost is out of the ground. For the mode of culture, we refer to our article on this subject under the head of work on the farm.

Early Turnips.—Prepare a bed according to our directions in the work on the farm, and sow some turnip seed. The *Early Flat Dutch* is the best kind for culture at this season.

Horse Radish.—Select a moist bed, manure, dig and rake it, and set out a bed of this most excellent condiment.

Rhubarb.—Now is the time to set out plants, or sow seed.

Garden Fruit Trees should, if they need it, be pruned early this month, fig trees as well as the rest, and otherwise treated as advised for orchard trees.

Fruit Trees and flowering shrubs may be planted any time this month.

Gooseberries and Currants.—Prune these the beginning of the month: new plantations should be made early; cuttings should be forthwith set out.

Raspberries.—Prune and tie up your raspberry bushes, and transplant the suckers.

Fruits of all kinds, whether trees or shrubs, ought to receive a dressing of manure.

Strawberries.—If your strawberry beds, have not been cleaned, clean them without farther delay, spread some well rotted dung between the rows, dig it in, rake and spread thereon either straw or tan. Then strew ashes over the bed.

In times of drought, water freely, holding the nozzle of the watering pot down to the ground, so as not to wet the flowers, and a luxuriant bed of strawberries will reward your labor.

In concluding our hints for the month, we tender the homage of our respect to the fair ladies whose province it is to direct in this department, and beg permission to express the hope, that each garden under their respective management, may be, as it ought to be, to their several homes, the ornament and pride of the neighborhood. And before we close we would respectfully suggest, that if their several gardens are not already supplied with them, to have planted a sufficiency of Gooseberry and Currant bushes, Raspberries, Strawberries, and Grape vines, to supply their families and friends with these delicious and healthful fruits. And while providing these luxuries for the table, to gratify the appetite, not to forget, that a garden is incomplete in its arrangements, unless the sides of its walks be interspersed with flowering and other shrubs, and its borders be adorned with flowers.

PRODUCT OF FLOUR AND BREAD.—Wheat, if weighing 60 lbs. yield of flour 48 " bread 64lbs*
Rye 54 " " " 42 " 56
Barley 48 " " " 37½ " 50
Oats 40 " " " 22½ " 30

British Husbandry.

It may appear marvellous to some, but it is nevertheless true that bread, when baked, contains from 40 to 45 per cent of water.

*The yield of bread made from wheat, and other grains, is in proportion to the *gluten* they may contain; the more gluten, the more water will the flour bear, and consequently yield more in weight of bread.

ESSAYS
ON
Various Subjects of Practical Farming.

BY EDMUND RUFFIN, OF VA.

ON CLOVER CULTURE, AND THE USE AND VALUE OF THE PRODUCTS.

(*Concluded.*)

The mowing of clover for green food should be begun as soon as the growth is high enough to furnish a good swath. In Europe, (as Boussingault states and seems to approve,) the mowing for hay is begun before the crop is fully in flower. In this manner, they obtain two mowings for feeding or hay, and a third growth, as well advanced, for ploughing under, or leaving on the land as manure. But it is difficult and hazardous to make hay of such immature clover, and the product is small in quantity, and, it is supposed, also inferior in quality as food. The best time for mowing for hay is when about one-fourth of the blossoms have begun to turn brownish. But if the crop is too large for the force, of course there must be some mowing both earlier and later than the most proper time.

Clover hay has been generally deemed of very inferior quality. It has even been declared by many farmers, and in some publications, to be unfit for horses, and admissible only among the coarse articles of food for wintering store cattle. If these opinions were confined to clover hay made (as has been most general) by turning and exposing to the sun, I should not care to dispute them. In that mode, the thin leaves are all crisped, and crumble to powder, before the large stems have lost their water and greenness. The cocks cannot exclude rain. And when the hay is dry enough to be stacked, or housed, it often has nothing left but the stems, and they as black and brittle as ripe and dead weeds.

So great were the supposed and ordinary difficulties of making clover hay, and so rarely was it obtained of good quality, by all the care that could be used, that the late Feilding Lewis, (then one of the best farmers in lower Virginia, and especially noted for applying abundant (if not too much) care and labor to every object,) after full trial, abandoned all attempts to make good clover hay—and resorted, instead, to a slovenly mode, entirely different from his general careful habits. He threw 3 or 4 swaths into a "wind-row" or light high ridge of partly withered grass, and so let it lie, until dry enough to stack—if rain did not previously destroy all its value. (*Farmers' Register, vol. I, p.* 23.)

The mode which I have adopted is upon the principle of curing the grass in the shade, and by air instead of sun—and of never moving the clover after its leaves are dry or crisp, (if they become so at all,) until it is carried to the house or stack. There is less labor, less danger of damage from rain, and more value in the product, than in any other process of which I have heard the manner and results. It is proper to say that the plan is not original with me. The attempt to cure hay in cocks (and of course mostly in the shade,) has often been made—and successfully, when high winds and heavy rains did not damage the cocks. The plan of preserving their upright position by stakes or skewers was first suggested and used by the late Claiborne W. Gooch, who wrote a communication embracing this contrivance, for the Farmers' Register, (vol. i. p. 164.) The plan was improved upon, and the practice reported to the same publication, (vol. x., p. 414,) at my request, by a very young farmer, who, since, with myself, and others seeing our practice, have successfully cured clover in this manner. Without further reference to others' practice or opinions, or noting differences, I will proceed to describe my own present preferred practice, as improved by the experience of this plan, in the whole clover harvests of the last seven years.

When the clover is nearly or quite in the best state for mowing, for hay, (that is, when about one-fourth of the heads are turning brownish,) that operation is begun, after dinner, or about 2 o'clock, P. M. When cut so late in the day, no other labors will be necessary. The grass is left in the swath, as cut, until the next forenoon, when the dew has dried off. If clear of dew when mown, there will be none except on the mere surface of the swaths. When quite free from dew, and also when some few of the upper leaves have become crisp, under the effect of sunshine, then it is time to begin the first fork-work. Other hands, (if the mowers are then employed,) with iron-prong forks, begin with the oldest mowing, and throw the swaths into small heaps, without any care for their shape, and each merely large enough to supply at least one good fork-full. These heaps might be put immediately into cocks, if required by approach of night, or threatening of rain. But otherwise, they will best be kept until the forks have gone over all the grass that is partly wilted by exposure in the swath. The making of these heaps is a facility for the subsequent cocking, and therefore is no addition to that labor. But after being thrown into these heaps, it is best to let the grass so lie a while, for two reasons. First, a new surface being then exposed to the sun, more wilting of the greener clover will take place, and less water (in the sap) will go into the cock, without danger of hurt by too much drying in the sun. Secondly, this heaping is a very easy and rapid operation, and so serves quickly to place out of danger the grass beginning to be crisp on the surface of the swaths.

After the heaping, (or an hour or two after beginning to heap, if different sets of hands are employed,) the cock-building is begun. The clover usually is then throughout the heap more or less wilted, or "fallen," but still full of sap, or juices, except the very few leaves crisped before the heaping—Stakes or skewers should have been previously prepared, and brought on the ground. These are either of rived timber, or otherwise cut of any tolerably straight sapling wood, though young pines of second growth, where standing thick, furnish much the best. They may be from 5 to 6 feet long, and 1½ to 2 inches through at the large, and 1 inch, or less, at the small end. Both ends should be sharpened by a hatchet. A pin, made of strong and tough wood, pointed, and rather larger than the large point of the stakes, is driven into the ground about 8 inches deep, to make a hole to set the stake, and which is so placed firmly and upright. The stakes are so placed in rows, and at such distances as trial will show is required for the cocks. The cock-builders now begin, by placing a heap of the grass around the bottom of each standing stake, and closely and evenly around. This, and enough to make the base, should not be more than 15 or 17 inches from the central stake to the outsides. Other clover is placed on this base, either with the hands

and around the stake, or with the fork, putting the clover loosely on the pointed top of the stake, and forcing it downward to its place. The thickness of the cock may be a little enlarged when 12 or 15 inches above the ground. But it is best not to permit any to be more than 3½ or at most 4 feet across the middle. The main object of the stake is to prevent the cock falling, or being blown over by high winds. With this support, the cocks may be raised at first to 6 or 7 feet high. They will afterwards settle considerably—and the more in proportion to the succulence of the clover, and the lightness with which it was laid on in the cocks.—Moderately pressing down the grass when building the cock is proper, to avoid too much settling. But the cock should not be made too compact at first, so as to exclude the entrance of air, and so prevent the proper curing of the grass. A little experience will show the improper extremes to be avoided.

As the cock settles, the grass holds more or less to the stake, and especially to the rough bark of pine. This causes almost every stem to droop from the centre to the circumference of the cock—and so to shed rain which would otherwise penetrate the very open texture of clover cocks. This manner of settling gives a pointed top to the cock, even if made broad-topped at first. The pointed upper end of the stake usually permits the top of the clover to settle below the point. But sometimes the upper clover is held up by the stake, like a hood over the lower and main part. The outside of the cock shelters all the interior from the sun entirely, and more or less from the rain. Of course the mere outside is spoilt, by over-drying in the sun—or is like ordinary sunned and turned clover hay. But all the interior usually cures perfectly, the leaves remaining on the stems, and mostly preserving their green color, and many of the flowers their red tints. Heavy showers and transient rains, during the curing, will not prevent this result, or to but small extent. Very heavy rains driven by strong winds, or long continued spells of rain, certainly will be injurious; but to much less extent than even moderate and transient rains with any other mode of curing. I have had very bad weather in some of my clover hay harvests; but though both labor was thereby increased and hay somewhat damaged, I have never lost, by bad weather, altogether, a ton of hay, in this mode of curing.

According to the weather, and condition of the grass, the cocks will usually have to stand from 4 to 7 days. I have in one case housed the hay (avoiding close packing) on the second day; and once, when the clover was cut too green, and the cocks built too compactly, and too large, they stood 8 days, and then had to be opened, to remove some internal dampness, which had caused mouldiness in the middle. This was the only case of such error and its injurious effect. In ordinary cases, and with only ordinary rains, nothing is required after cocking, until the hay is fit to be housed.

When the first cured hay is fit to be housed, or stacked, the removal of the cocks ought to be begun early in the morning, while the hay is pliant, (or "gives," or is "in case,") from the effect of the damp night air. A moderate dew still remaining on the cocks, is no objection to proceeding. But any greater degree of wetness, from recent rain, I would not risk, if the hay had to be immediately packed closely, and in large bulks. After beginning, the carting in of the cured hay, and storing it, should proceed as fast as possible, while the hay continues pliant. But as soon as it begins to be rigid and crumbly from increased drying by the sun and dry air, the hauling should be suspended, until the next morning.

Preceding the loading of the carts, for half an hour or an hour, (according to the weather,) the loaders pull out the stakes, and then turn over the cocks, nearly upside down, but leaving the old bottom somewhat facing the sun. This part will usually be a little damp, from contact with the ground—(though not always, if cocked on dry ground,) and this, or any other remaining dampness, will be speedily removed by this little exposure to sun and air. The cocks must not be so exposed longer than necessary, before being carted in; and should be housed or stacked as soon as possible afterwards. Hay so cured will be inviting in color and odor, will be eagerly preferred by horses and mules to the best corn-fodder, or other hay cured in the ordinary manner. And if it is in any respect less valuable as food, no evidence of the fact has come under my observation. Green clover, or clover hay, is my only long forage for some months of every year, and is used without stint as long as it lasts.

For fear of rain, the hay ought not to remain in the cocks longer than it is cured enough for housing. But on more than one occasion, part of my hay was still in cocks, and not cured enough to house, when wheat-harvest was begun, and which occupied all the force for more than two weeks. After this long exposure the cocks were hauled in; and though there was more depth of sun-burning and injury thereby than usual, the interior hay was still excellent—and the whole together, averaged, was tolerably good hay—and preferable to most of the meadow hay sold in the towns.

Stacks or ricks of clover hay are troublesome to build and to secure from rain. They should be well trodden, while building, for compression, and to prevent more than the unavoidable settling; and should be topped with straw, to keep out rain. Putting clover in houses is very far the cheaper and safer plan.

The stakes should be brought to the barn-yard with the loads of hay, and placed under shelter. If so taken care of, they will serve for many years.

It should have been stated earlier that clover ought not to be cut for hay while any dew remains on it—though a very little remaining will dry off the clover after being cut, and as lying in the swath. This rule will delay the mowing generally to from 9 to 11 o'clock, A. M. All the clover cut each day before about 2 P. M. may be cocked that evening. All cut after that time may remain in the swath until next day. If the grass is wetted thoroughly by rain in the swath, and before being wilted, there will be no loss, except of labor in opening and stirring the grass, which will then be required to dry it. As soon as this accidental moisture is entirely removed, the heaping and cocking should proceed, as in other cases.

The slight moisture from dew just before and to twilight, need not suspend either the mowing, or the putting of grass before heaped into cocks. But I would prefer not to make heaps from the swath after dew was perceptible on the clover.

The clover after being cut, usually lies in the swath, under from 3 to 5 hours of sunshine, and in the heaps, an hour or two longer. And all cut after 2 P. M. usually lies in the swath until next morning, and until the dew has dried off. But

when there has been danger of a spell of rain, or on the evening preceding a Sunday, I have cocked, (and cured safely,) all the clover cut before 4 P. M. and within two hours after the mowing. In such cases, the cocks should be smaller than usual, and the fresh-mown clover laid on more lightly, than directed above for the ordinary procedure.

The great value and most important use of clover is as a green manure, and especially for wheat. For this purpose the land on which the clover grew, should be ploughed as deeply and as well as the soil and its then condition permit, and as early as may be after the end of July. If done much earlier, the second crop of clover will not have reached its full value as manure—and also the early ploughing will become very foul with grass. If the ploughing is much later, the crop of wheat will usually be lessened in proportion to the delay. This, however, is not always the result.

It is the general usage of those who precede wheat by clover to plough under the clover in its first year of full growth—(that is, the second year after sowing the seed.) Such was my own entire practice until recently, induced by the common belief that clover will generally die after attaining its full growth—and that, if left longer, weeds will be almost the only growth of the field in the next year. This is indeed the case where the soil is unfavourable to the growth of clover. But I have found latterly, that parts of my clover fields left unploughed through the second summer after full growth (or third summer after the sowing,) are equally as well, and in some cases better, covered by clover, than in the previous summer. The second year's growth is lower, but a thicker cover than that of the previous year. Many new plants spring in the before unoccupied spaces. And though clover is deemed a biennial plant, and as such should die after its second year from the germinating, still many plants live longer than this term. More especially, is this protraction of life induced by the mowing or grazing of clover just before it forms its seed.

If the continuance of the clover crop for two years can be relied on, (from previous trial and observations,) it is surely a great loss to plough it under a year earlier. If the usual one year's product is of great value as manure, two year's product should give twice as much manure. And as the great difficulty is to obtain a good "stand" of plants, it would seem the more required to maintain the continued manuring of a good stand already existing, rather than to try the risk of obtaining another from the seed, on other land.

Besides the manuring value of the clover above the ground, there is another large proportion in the roots. These are large, and penetrate the soil deeply, and all remain to manure the soil. Boussingault found, by careful trial of a certain space, (120 square yards) of an inferior growth of clover, that the roots alone made 1418 lbs. to the acre, when all the hay (two cuttings, as I infer from the context,) of that year made but 1810 lbs—both products being dried completely. The quantity of clover roots contained 26 lbs. of azote; or about one-seventh the quantity of azote in the ordinary heavy manuring (27 four-horse wagon loads to the acre,) given to the field from stables and barn-yard, and after fermentation, which was 186 lbs. of azote.*

*Boussingault's "Rural Economy, &c." Am. Ed. p. 355 and 362, 3.

An average year's product of hay, of his farm, Boussingault found to produce 78 lbs. of azote. Then the roots, in the above proportion, would have yielded 60 lbs. of azote—and the whole growth of clover, for one year, would yield 138 lbs.—or about three-fourths as much as the above named heavy cover of well fermented barn and stable manure.

The roots of plants cannot grow more than in proportion to the sizes of the plants above ground. Of course the roots of clover will not reach their full size and manuring value, if the crop is taken off, either by mowing or grazing, before being fully grown. From this, it may be inferred, that if clover is early and constantly grazed, so as never to attain much size, the roots will be as much dwarfed, and can give but little manure to the ground. But if the crop is allowed to reach full size, and is then mowed, or closely and speedily grazed off, the roots will have also reached full growth, and are competent both to send forth another good crop speedily, and to manure well the ground by their subsequent death and decay.

LAWN GRASS—MANAGEMENT OF LAWNS.

Having frequently, of late, been asked what grasses were best suited to the formation of a lawn?, and believing that the subject had become one of interest, we have taken considerable pains to investigate the habits and nature of the whole grass family, and, after much reflection, have made the following *selection*, which will, perhaps, be found as well adapted to the formation of a permanent lawn, as any other that could be made. They combine the desirable properties of being perennial, of forming a *dense turf*, and of being hardy, considerations of moment in the creation of so desirable an appendage as is a well-set lawn in the appointments of a gentleman's farm-house.

1. Crested Dog's-tail — *Cynosurus Cristatus*,
2. Hard fescue — *Festuca duriuscula*,
3. Sheep's fescue — *Festuca Ovina*,
4. Glaucus fescue — *Festuca Glauca*,
5. Purple fescue — *Festuca Rubra*,
6. Long awned Sheep's fescue — *Festuca ovina hordeiformis*,
7. Welsh fescue — *Festuca Cambrica*,
8. Herd's grass or Red-top — *Agrostis Vulgaris*,
9. Smooth stalk'd meadow* — *Poa Pratensis*.

The quantity of seed, per acre, of each of the above kinds of grasses, should be apportioned as follows:

Of No. 1, half a bushel. Nos. 2, 3, 4, 5, 6 and 7, each, one gallon; 8 and 9, one peck each.

The experience of all who have given the subject of grasses proper attention, justifies the assertion, that a good sward or turf cannot be obtained by sowing one kind of grass seed alone, and that success will depend upon several kinds, adapted to the purpose, being *well mixed* and sown together, and by a *liberal* distribution of seed.

In laying down a lawn, much care must be observed in the preparation of the ground. It should be ploughed deeply, subsoiled, thoroughly harrowed; then manured heavily with rich putrescent manure, which should be ploughed in 6 inches deep; the ground then should be dressed with ashes, lime, or marl, say 50 bushels to the acre, then carefully harrowed until made of fine tilth, when the grass

*This grass is known in the West as Kentucky blue-grass—in the Middle States as June or green-grass, and at the East, as spear-grass.

seeds should be sown by a hand competent to distribute them evenly, when they should be harrowed *lightly* in, and the ground rolled.

The best time for sowing the seed, is from the 1st of March to the 20th April in spring, and from the beginning of August to the middle of September, in autumn. In the spring succeeding, so soon as the ground becomes firm, from the absence of frost, the lawn should be rolled. No mowing or grazing should be allowed the first season; the weeds, however, should be kept down by hand-weeding. In succeeding years, the grass should be cut every few weeks, to maintain a short, fresh, green, velvety turf.

It might add to the effect, if three or four pounds of white, and two pounds of yellow clover seed were sown at the time of laying down the lawn, as the contrast furnished by the green leaves of the grasses, in their various tints and shades, and the white and yellow flowers of the tiny clovers, could not fail to be pleasing to the eye.

Such lawns, *every second year*, in autumn, should be harrowed, top-dressed, and rolled, to keep up the fertility of the soil. Ten bushels of ashes, 4 bushels of bone-dust, 2 bushels of salt, 10 bushels of well rotted manure, and 1 bushel of plaster, per acre, mixed together, and left in pie for two weeks before being applied, would furnish for an acre as much organic and inorganic food as would be needed.

It may be proper to remark, that most grasses delight in soils where there are notable proportions of clay, as in clayey moulds; the clay, owing to its physical and chemical powers, being more retentive of moisture, a better absorbent of the gases of the atmosphere, as well as a better conservator of the nitrogenous compounds than sands. Such being the case, should the soil of a lawn, as is often the case, be sandy, it would be well to apply, say, twenty loads of clay, per acre, and incorporate that thoroughly with the sand, by several harrowings, taking care, if necessary, to apply the roller freely, so as to break all the lumps of the clay, and reduce them to a condition of fine tilth, as every soil on which grass seeds may be sown, should be brought to that state previous to the seeds being distributed.

The clay should be applied as a top-dressing, before the ashes, lime, or marl, may be put on. In the sowing of grass seeds, no one need fear that he may be rendering the tilth of his land too fine, as the finer it may be, the greater will be the certainty of the germination of the seeds, the greater the certainty of the plants imbedding their roots in the soil, and thus ensuring themselves against the baleful influence of droughts; hence too much pains cannot well be paid to the preparation of the ground.

To preserve a lawn in its freshness, during periods of long continued droughts in summer, it should be watered; the labor of which is not great, if one will address himself to the work with a will; for, with the aid of a garden engine, it may be done in a few minutes; and certainly no husband or father who takes pride in the appearance of the grounds surrounding his dwelling, should begrudge the necessary time, when its appropriation to such purpose is so well calculated to impart a charm, and lend beauty to his home—to that *home* where dwells the dearest objects of his love, his affection, and his regard—to that *home*, to which, after the shortest absence, he turns with feelings of joyousness, with aspirations of delight—to that home which forms the attracting centre of all his earthly hopes—and the spot alone at which his heart finds its sweetest consolation and repose.

If seeds of the grasses designated are not procurable at the seed stores, they may be obtained by any gentleman, who may give an order to his seedsman to import them from Europe, in a very few weeks.

SOLUTION FOR APRICOT AND PLUM TREES.

The following is recommended to us for the destruction of the insect that causes the above trees to drop their fruit. It should be used when the trees are in bloom:

Take ½ a gallon of soft soap,
2 lbs. leaf tobacco,
2 lbs. copperas,
¼ lb. nux vomica,
1 pint spirits of turpentine:

Put the whole in a barrel, pour 20 gallons of boiling water thereon, stir until cool. In a day or two the decoction will be fit for use—when it must be thrown over the branches and leaves of the trees with a garden syringe or engine, so as to saturate them well.

Freshly *slaked lime*, or *unslaked ashes*, if sifted over the trees for SEVERAL SUCCESSIVE MORNINGS, while the flowers and leaves are wet with the dew, would, we should think, operate equally as well as the above mixture, with this in their favor—either would be a more cleanly application. We are sure, from the causticity of both lime and ashes, in their *fresh* state, that neither could come in immediate contact with the *egg*, or the *young*, of the insect which destroys the fruit of the apricot and plum, without putting them past the power of doing harm. The misfortune is, however, that such applications are entrusted to those who feel but little interest in their success, and are, therefore, slovenly done; or, perhaps, only applied but once, and then under a concurrence of unfavorable circumstances,—whereas, *the master should personally superintend such operations, himself*, and have them performed some four or five successive mornings. It would be an easy matter to attach a seive to a pole, by the aid of which a tree could be dusted in five minutes; *and surely, if by the proper improvement of the required time, we can save the delicious fruits of the Apricot and the Plum* for the use of our families, the appropriation of that time to such purpose, should not be viewed in a grudging spirit, but in that nobler light, of having performed a *duty*, which our relation to those around us rendered as imperative as it was sacred.

We have seen it highly recommended, to suspend wide-mouthed bottles, partially filled with sweetened water, on the limbs of these trees, to catch the moths which deposit the eggs in their flowers, and we think such precaution would be found serviceable, as such insects have a *relish* for sweet substances, and many of them, in their effort to gratify it, would be drowned in the sweet compound.

Since writing the above, we have read an article on the proper manure for *Strawberries*, in "*Moore's Rural New Yorker*," in which the writer, after recommending two or three dustings with ashes during the season, says:—

"*Wood ashes* are still more valuable when scattered upon the wet leaves of such trees as are apt to blight, as the *Pear* and *Quince*. I commenced using them in this manner in 1837, to destroy the slug which appeared on my pear trees, about that

time in a most destructive manner; and observing the trees become more vigorous and more productive, I have continued to use them freely in this way since that time. The result is, my pear trees are as healthy and as free from blight, as any other trees. The ashes in this case are made to perform two offices or functions. In the first place, they are destructive to all insects that may come to harm the tree, or its tender leaves; and in the second place, they are eventually brought to the ground by the rain, and either become a direct tonic to invigorate the tree, or else they prepare the soil, by the alkali which is leached into it, to retain moisture, and do the same thing indirectly."

We have repeatedly recommended the dusting of fruit trees with ashes or lime, and have no doubt that such practice, *if properly carried out*, would be found to operate beneficially on *all fruit trees*, and that the good effects ascribed by the above writer, would be produced by their application.

After all the recipes that have been published for the preservation of the fruit of the Apricot, we doubt if there be any offering so much security, as that which recommends that the ground for several feet from the body of the tree be paved, that while in bloom, and some time afterwards, sheets be spread underneath the tree, the tree be shaken, and the curculio be caught when they fall, and destroyed, and that all fallen fruit be picked up, and fed, daily, to the hogs. These processes would probably fail the first year, in destroying all the insects, but if persisted in for a few years, would, we believe, prove a radical remedy.

In addition to this, we think it would be advantageous to spread ashes, every spring, around and under the tree, as far as the branches extend; besides which, we would shorten the limbs themselves.

Editor of the American Farmer.

Again, we find this in the Albany Cultivator, under the signature of D. T.:

William Hooper, of Kelloggsville, Cayuga Co., has a plum tree which had regularly dropped its fruit prematurely until the present season, when it bore a fine crop. Its productiveness is ascribed to the following experiment:—Round the tree, at the distance of a foot or more, a small trench was cut last spring, and filled with several quarts of salt. [*Qr. How many? Ed. Am. Farmer.*] The directions (which were found in a newspaper) mentioned a peck to each tree; but apprehensive that so much might prove injurious, they lessened the quantity. The tree appears quite healthy.

ACTION AND METHOD OF USING GUANO.

In answer to the inquiries of our friend of "Notley Hall," Va., in regard to the action of Guano on "poor worn-out land," we have to reply; that, on such lands its action should be most manifest—most beneficial—containing as it does, in a state to be availed of, those substances which plants need, which such land is mostly deficient in, and without a supply of which, they cannot grow in luxuriance and perfection. The non-action of the guano upon all the kinds of vegetables, with the exception of one to which he applied it, arose no doubt from the cause assigned by our observant friend, viz: the drought of the summer. Guano, like all other kindred manures, requires moisture to bring out its virtues; nor can the plants avail themselves of any food which may be in the ground, no matter how good and congenial it may be, until that food, through the agency of water, be reduced to a liquid, or gaseous form, as it is one or the other of these forms which imparts to the rootlets of plants the power of feeding

With regard to the mode of using guano, we give it as our *opinion*, which we advanced from the beginning, and have never seen any cause to change it, that Guano never should be applied without being mixed with Plaster, to *fix* and prevent the escape and waste of its ammoniacal constituents. Before being used, 25 lbs. of Plaster should be mixed with every 100 lbs. of Guano. This mixture should be *broadcasted* over the ground and ploughed, or spaded in. We believe that any manure of the concentrated nature of guano, abounding as it does in the elements of ammonia in almost every state, can but rarely be used safely, except as a broadcast dressing, and that it cannot advantageously be used in the hill or drill, except when mixed with a large proportion, say twenty to one, of mould or some other substance of similar nature, and even then, that such compost should be placed so deep as that the seed, setts, or plants should not come in *immediate* contact with it.

If we were going to apply it to potatoes in the hill, if we did not use it composted with a large body of mould as above, we would use it thus—after mixing the guano with plaster, we would strew the mixture on the bottom of the furrow or drill, and then cover that with an inch or so of wood's-mould, or other kindred substance, and upon this plant the potato setts, and cover the whole over.

In using it on watermelon hills, we would act thus: at the point for forming the hill, we would make a hole with the hoe, there deposite the mixture of guano and plaster, mix it in with the earth, and raise the hill upon it from the surrounding mould, or

We would mix 200 lbs. of Guano with 50 lbs. of plaster, and then compost it with 3 loads of wood's-mould, marsh mud, or like substance, place a shovelfull at the bottom of every hill we might raise. By either of these modes the vines would derive all the benefit from the virtues of the guano, without any injury. The volatile portions would ascend and feed the rootlets of the melon plants, while the roots would descend and feast upon those of the constituent elements of guano that are not volatile.

A solution of guano might be made in the proportion of 1 lb. of Guano, and 10 gallons of water, with which the melon plants might be very advantageously watered in times of drought. Such a solution would prove doubly useful, first, in protecting the vines from the effects of drought, and secondly, by affording to them direct food—food of a nature adapted to their wants, as the water would decompose the ammonia of the guano, deprive it of the power of harm, and prepare it to be taken up as pabulum.

We will add another remark, in order to answer a question from another quarter. We believe the best way to apply guano to tobacco, is to sow it broadcast over the ground and plough it in—and that, if applied to the hill, it should be mixed with one-fourth its weight of plaster, and for every 100 lbs. of the guano, three loads of wood's-mould should be composted with it. In Peru, guano is applied to the crops at each time of working; but all such applications are followed by immediate irrigation; the water of which, by decomposing the ammonia of the manure, prevents all resulting injury, and ensures benefit to the growing plants.

Where a wheat crop is to follow the tobacco, we would, by all means broadcast and plough the guano

in. If treated to plaster and ploughed in, we have no question but that the good effects of the guano would be visible during the ordinary period of a rotation.

DIFFERENCES IN THE ASH OF CULTIVATED PLANTS.

Having given an abstract from professor *Norton's* chapter upon the organic and inorganic constituents of plants, we will follow up his views as to the difference, as found by analysis, to exist in the ash of several kinds of cultivated plants. He remarks:

"We have noticed each of the substances that were named as occurring in the inorganic part of plants, and have given such of their more remarkable properties and more common forms of appliance as seemed necessary to their recognition by the practical man.

"It has been already stated, that with one or two occasional exceptions, they are all found in the ash of cultivated plants. Sometimes one and sometimes another is absent, but generally we find small quantities of nearly all. It does not follow from this, however, that every plant contains the same quantity of ash. The trunk of a tree, for instance, if deprived of its bark, does not yield more than from one to two pounds of ash in one hundred of wood, while the stalk of grass or straw of grain frequently contains from 6 to 14 lbs. in 100. There are some plants which scarcely contain any ash whatever, and others in which it forms a large proportion. This difference exists not only between various plants, but between the parts of the same plant."

"If we examine the straw of wheat, we find usually 6 or 7 per cent. of ash; the leaf contains 7 or 8 per cent., and the grain not more than from 1 to 2 per cent. So in turnips or beets, the dried roots have no more than from 1 to 2 per cent of ash, while the dried leaves often leave from 20 to 30. These facts are to be remembered."

"When we pursue our researches a step further, and separate the substances which make up the ash of different plants, we find that here also is a great variation. The ash of potatoes is more than half potash, while the ash in the grain of wheat contains much less potash, but is about half phosphoric acid. The ash of clover and lucerne often contains twice as much lime as that of herd's-grass or timothy hay."

"We may thus divide plants into classes according to the composition of their ash. In the ash from the seed of wheat and all the cultivated grains, phosphoric acid is the leading ingredient; in that from turnips, beets and other roots, it is much less, while the alkalies and soda increase; in the tubers of the potato they constitute more than half; in the grapes, lime and silica are more abundant, and in some, as the clover, lime becomes a leading substance; in the stems of most trees lime abounds yet more, and in many cases exceeds in quantity any thing else. These facts have a marked bearing on many practical points which we have yet to consider."

"It was stated that the quantity of ash varied in different parts of the same plant, as for example in the straw and the grain of wheat. This variation in quantity is not more marked than in the composition of these two ashes. In the ash of straw we find that there is a great proportion of silica, and very little phosphoric acid, while in that of the grain more than half is phosphoric acid, and there is scarcely any silica. When we come to consider the purposes for which these parts are intended, the cause of such variations will be plainly perceived. We even find in many plants a distinction between the composition of the ash at the bottom of the stalk, and at the top. In all cases the ash from the husk which covers the seed, as in oats, barley or buckwheat, differs exceedingly in its constitution from that of the seed itself."

"We have now called attention to several valuable facts respecting the *inorganic* part or ash of plants."

1. All of the inorganic substances described are generally present in our cultivated crops, but not invariably: sometimes one or two are absent.
2. The quantity of ash yielded by different plants varies.
3. The composition of this ash also varies, and in as great a degree as the quantity.
4. This applies not only to different kinds of plants but different parts of the same plant.

OLD LANDS BETTER THAN WHEN FRESH.

"Many of the oldest counties of Georgia, are now making more by agriculture, than when the lands were fresh and unworn.—*Southern Recorder.*

"The first wheat raised in Western New York, was sown in November, 1788, on the outlet of the Crooked Lake, in Yates Co. It produced 15 bushels per acre. The same land has since frequently yielded harvests of 30 and 40 bushels per acre."—*Rural New Yorker.*

These facts coming to us from the South, and from the North, are truly gratifying. They establish the instructive fact, that cultivation, properly conducted, tends to the improvement of land, and to the increase of its productive capacity; and hence, should serve to arm every agriculturist with the determination, to keep up the supply of inorganic and organic manures in his soil. The quantity of either carried off the soil, in any one year, in the crops, is really not very great, and may be restored by any industrious agriculturist—may be more than restored, and thereby enable him to place his land in an inproving condition. All that is necessary to bring about this desirable result, is, to husband and apply every resource in the shape of manure on the farm. If this were done, instead of deteriorating, our lands would be enhancing in their productive powers. But suppose we had to make expenditures for Guano, bone dust, ashes, lime, or marl; such expenditures would not only bring back the outlay, but return it with compound interest, and lay the foundation of such a system of culture, as would do away with the necessity for similar expenditures for a life time; provided the home supply of manures, and the materials for forming them, were properly husbanded and appropriated. Let us exemplify the ease with which the crops may be fed. A single bushel of unleached hard-wood ashes, if kept dry, will yield 5½ lbs. of Potash, so that 5 bushels would more than supply a crop of 20 bushels of wheat with that substance, to say nothing of the quantity of lime, phosphoric acid, carbonic acid, Sulphuric acid, magnesia, soda, chlorine, oxide of iron, and manganese, they would also furnish. If then, where soils may be deficient in the inorganic food of plants, an annual application of 5 bushels of ashes per acre, were made, there can be no doubt, that even this small dose would keep such soils in a healthful state of progressive improvement, provided proper attention were also paid, to periodical treatment of the land to dressings of putrescent manures.

The agriculturist should bear in mind, that each bushel of ashes contains more than one-third of its volume of lime, besides a very notable per centum of phosphoric acid, and many other substances, which enter into the composition of cultivated plants, and hence the necessity of carefully preserving and applying every bushel that may be made on his farm or plantation to his crops.

An Essay on the Culture of Tobacco.

By W. J. Blackiston.

[The following Essay was received, with others, in competition for the Prize of a silver cup, offered by the conductor of the *American Farmer*, several of which (including that of Col. *W. W. W. Bowie*, which bore off the prize,) were published in our last volume. The writer of the following is one of the best planters in Maryland, and we owe him an apology for its non-appearance before. We could not publish all received until after the season was over last year, and we concluded to defer its insertion until the present spring. As important changes have taken place in the Tobacco market, since this essay was prepared, it will be well to call attention to the date at which it was written.—Ed. Am. Farmer.]

Friendly Hall, St. Mary's Co. Md.,
October 2d, 1849.

The Tobacco interest which has been so long neglected by our own Government, and which the people generally had considered as no longer affording a fair remuneration for the labour expended in its culture, I am glad to perceive is again worthy of notice.

The labour bestowed upon the subject by the Hon. John G. Chapman, and his able and elaborate report, shewing great research, has awakened a new interest in the subject, and I am gratified that the Editor of the American Farmer has given a no less striking evidence of the concern he feels for the planters, by the several notices which appear in the monthly editions of that valuable paper.

It was at one time one of the most important staples of the country, but the onerous duties imposed by foreign governments, amounting almost if not quite, to prohibition, have tended to diminish its production, until at this time, the excess raised over the amount necessary for home consumption, is merely nominal compared with what it was in the past year. The product of the present year will scarcely reach half of that of the preceding. The cause no man can mistake. The duties continue, labour is the same, whilst the price is too low to pay the cost of production. Whole districts have abandoned its cultivation altogether, and other portions aiming at not more than the fourth of a crop, in many instances have totally failed, either from indifference or neglect, or, what is more excusable, the failure to raise plants. Of all the products of the earth, there is perhaps none that requires such continued care and attention as tobacco, and very few yield so small a remuneration at recent prices.

If the few practical remarks I shall make should in any degree tend to such results, the public are welcome to them.

The first thing necessary to the successful cultivation of tobacco is early plants. I shall therefore begin with the preparation of tobacco beds. I do do not know how the subject can be better treated of by me, than by giving my own practical experience. I select a virgin soil with an exposure from the east, south, to west. It is raked clean, it is then burned over with brush or small wood, then hoed to the depth of 3 or 4 inches, until the whole is reduced to a fine tilth; it is then laid off in ridges 4 feet wide and raked with a fine rake, the space between the ridges being the width of the hoe, the surface of the ridges as nearly level as possible; the ridges should be north and south if the location will admit of it—I then apply one four ox load of most *recently raised stable manure to* 400 *square yards, upon the surface*, and seed one table spoon-full of seed to 100 *sq. yds.* and then pat with the hoe. The manure is raised thus: The stables are swept clean of all seeds, and then littered *with wheat straw*; the horses' long food is wheat straw, their manger *food, corn*. It is kept free from rain, and sun, until used upon the bed, and then equally distributed over the surface with the hand. Care should be taken that no lumps should be left on the bed, so as to prevent the seed from reaching the earth. No other covering should be used, as the wheat straw in the manure is amply sufficient, and the best covering it can have. I then apply plaster at the rate of one bushel to the acre, and when securely fenced in, either with a rail or hedge fence, the bed is completed. Brush should never be used as a covering, as it certainly from my knowledge gained by experience, retards the plants at least three weeks, and moreover, renders them more liable to be destroyed by the fly, particularly when taken off. The straw should not be removed at all. It is no injury to the plants, on the contrary, a constant benefit. It keeps off the frost, and is a great protection against the fly. When the plants generally are up, I would top dress with drawn ashes, hen manure, and plaster, mixed in the following proportions:—1 bushel of drawn ashes, ½ bushel of hen manure, 1 gallon of plaster, which will be sufficient for 400 sq. yds. to be repeated whenever washed off by the rain, unless the plants should indicate from their growth the absence of any necessity for further use. If the fly is bad, the mixture should be used whenever washed off, but always applied when the plants are dry—about noon is the best time. If a long drought should come on, an occasional application of half the above compound, say twice a week, is the best preventive against its effects. Liquids should never be used except to promote the growth of plants in damp weather, and then are not necessary if the above mixture is used, as it will accelerate their growth as much as is desirable. I omitted to state as *indispensable*, that the bed should be *well drained*, and *kept at all times free from weeds and grass*. I have succeeded in raising plants in the mode above indicated for 12 years without a failure. I work two farms, and one bed at each, the size being regulated according to the proposed crop, has been all that I have found it necessary to prepare within that time. No bed has been injured by the worm since I have adopted the above plan; before I have had them entirely destroyed when the plants were fit to set out, when the manure was incorporated with the soil. I would caution all who may adopt these suggestions, not to rake the bed after the manure is applied, as it will most certainly ruin it. Would any profit by the above, I would remind them that *personal attention is the best security against failure.*

The Time and Mode of sowing the Seed.

The time must depend in a great measure upon the season; if wet, the be cannot be properly prepared. I have had good oeds which were sown the

10th of January, and others as late as the 25th of March. The first good weather in February, say, (if it happen on,) the 20th, I would prefer, but as the weather is uncertain, the first opportunity that may offer between the middle of January and the last of March should be embraced, and that the time may not find us at fault, it would be well to have the brush or wood hauled in place, ready for use.

I usually mix the seed with drawn ashes, a table spoon-full, (the quantity for 100 sq. yds.) to a half gallon of ashes, and sow them with the hand, and that they may be as equally distributed as possible, make two sowings, one lengthwise, and the other crosswise the bed.

The manner of protecting the young plants, as well from frosts as from insects, I have indicated above in the application of stable manure with the wheat straw, upon the surface before seeding; it is an effectual protection against frosts, and a great security against insects, and with the top dressing recommended above, to wit: 1 bushel of drawn ashes, ½ bushel hen manure, 1 gallon of plaster, mixed together, and put on 400 sq. yds. and repeated as often as circumstances may indicate, will prove as effectual a remedy against fly as can be devised. Soot added, would be an improvement perhaps, say 1 gallon.

I have no doubt guano would be an excellent top dressing put on when the plants are dry, say at the rate of 100 lbs. to the acre, with plaster. I have never used it for that purpose, and therefore do not feel at liberty to do more than express an opinion of the probable good effects it might produce.

The Period and Method of setting out Plants.

Much depends upon the care and attention bestowed upon the bed as to the time when they will be fit to plant. I have usually had them fit to plant by the 15th of May, sometimes by the 1st. of May, and then they require moist weather to transplant them, otherwise many would perish. The usual season for planting is from the 15th of May to the first of July; the first is considered early planting, the latter late planting, and in danger of an early frost.

The Method.—They are drawn from the bed by the hand, and conveyed to the soil prepared for them, where they are transplanted one in each hill, a hole being made (by a planting stick, about 8 inches long, and 1¼ inches in diameter) to receive the roots which are compressed by the hand with the surrounding earth. If planted in hills, about 5 or 6 thousand to the acre, if in drills, from 7 to 8 thousand, according to the views of the planter; the usual distance in hills is 30 inches, in drills about 20 inches, by 30 inches the wide way—I would prefer 36 inches. If it is desired to make large tobacco, planting in hills at 3 feet distance each way is best; if fine tobacco, closer planting must be resorted to, either in hills or drills. Much depends upon the locality, as to which is the best mode of planting—there are various opinions—I have planted both ways this year. I plant in hills, and I am satisfied with the crop, as it is as good as any I have seen.

The soil best adapted to the growth of tobacco is a light bright brittle soil—newly cleared land produces the finest and best tobacco, but the quantity is usually less per acre, than upon land of similar texture well manured. Land intended for tobacco as for all other cultivated crops, should be freed from water by thorough draining. Wet land causes it to french, as we call it, and renders it unfit for use. The leaves present the appearance of being frozen, and cannot be restored by any efforts again to healthfulness. Lands gently undulating, are best suited to its growth, as they pass off any excess of moisture so injurious to the plants. Of all the manures I have ever tried, stable manure is to be preferred; it causes a quick growth, which is very desirable, if not absolutely necessary to the production of a good article. The quantity of stable manure generally raised on a farm being insufficient to manure a large field, the mixture of virgin soil taken from the woods, headland, and ditches, with the stable manure, would much increase the planter's available means of manuring his grounds, and amply compensate him for the labour expended. Ashes are a valuable and lasting manure, not so liable to exhaustion as other manures, but in dry seasons apt to fire the tobacco, unless plaster is used, which keeps it green and makes it coarse.

I have used guano with some success. In the spring of 1846 I applied 300 lbs. of African guano, (at a cost of $34.50 per ton) to the acre; it produced a fair crop of tobacco, as good as the average crop. I used plaster with it, a bushel to the acre. The guano was applied in misty weather, ploughed in, the land prepared, and planted. In the fall I sowed the land in wheat,—the crop was quite a satisfactory one. In the spring of '47 I seeded clover on the wheat,—it took remarkably well, and in '48 I had a fine crop of clover on the land. In the spring of '49 it was prepared for corn, and the crop on it at this time shows the most decided effects of improvement. I am therefore of opinion, that guano may be used to advantage as an improver for the growth of tobacco, as well as wheat, and corn crops, &c.

The opinion is very prevalent that the effects of guano after the first crop is scarcely perceptible, and not at all to be relied upon. This arises from the fact that so small a quantity is applied, that the first crop appropriates so large a portion of its fertilizing qualities, that little is left for the succeeding crops. If small quantities of any other manures are applied, I am inclined to think that a similar result might be expected. I am sure the wisest economy in any and all manures is to lay it on plentifully, as it ensures good crops and permanent improvement, with judicious management in the rotation of crops. After tobacco should follow wheat, then clover.

It is important in the preparation of land for tobacco, that it should be well ploughed, and that as early as the weather will permit. The first open weather in February should be availed of, to break up the tobacco land. The subsequent frosts will in a measure diminish the number of worms which cut off the young plants when first set out. I have heard of salt being used successfully, sown at the rate of 2 bushels to the acre—I have never tried it. The other method I have tried and found decided benefit from it. The land being ploughed in Feby. should be rolled down so soon as the frost is out of the ground—it should be checked off with the plough that the manure may be equally distributed. The manure should not be permitted to remain on the surface, but should be turned under about the depth of three inches, and the land rolled down compact, and so remain until the leaves of the tobacco plants become as large as a dollar, or an inch and a half in length. It is then

time to begin getting your land ready for planting, as with seasonable weather, the plants in a week or ten days will be fit to set out. The land should be thoroughly ploughed, raked, and rolled, and reduced to a fine tilth, and then laid off, if for hills, 30 inches each way, to make fine tobacco, or 3 feet if it is desired to make large tobacco; if for drills, they should be about three feet apart, and the plants about 20 inches apart in the drill. So soon as the plants are large enough to set out, (which is when the leaves are from 4 to 6 inches long) the first rain they should be transplanted, the earlier the better. When the plants have taken good hold on the soil, they should be weeded, which is to scrape off the surrounding surface of the hill or drill so as to destroy the young weeds and grass that may be putting up. The land should be kept mellow by the plough or cultivator until the tobacco plants are nearly grown, that is, until the land is well shaded by the plants. The hoe should be used at any time grass or weeds are discovered near the plants, which the plow cannot remove, and also to put dirt to the roots of the plants, where they have been kept exposed, either by the plough or cultivator. The preference between the plough and cultivator must be determined according to the soil, season, and locality. I would prefer, (all things suiting,) the use of the cultivator, but in seeding the tobacco, and in wet seasons, the plough is necessary. The hoe at all seasons indispensable. When the tobacco begins to button, or put forth the seed-head, it should be topped;—the plant usually indicates the point of topping, having two leaves nearly the same length, at the place where the top should be taken off. The number of leaves that should be left on the plant, depends upon the time of topping, the growth of the plant, and the richness of the soil, from 16 to 22 leaves are the usual number; less would make the tobacco coarse, more might make the leaves short. I usually top and sucker with the hand—knives might be used if desired. The suckers soon make their appearance after topping, and when 3 or 4 inches long, should be taken off, as they draw from the stock juices that belong properly to the leaves. This operation of suckering has to be performed as often as necessary—twice is generally sufficient, though sometimes 3 or 4 suckerings are required, before the plant is ripe. (*To be concluded.*)

MARLING IN VIRGINIA.

To the Editor of the American Farmer—

That I may contribute to the usefulness of your valuable Agricultural, while I am deriving much benefit therefrom, I have concluded to give for the information of those engaged in marling, where the pit is located on a low, flat, and wet surface, my practical operations on the subject, to wit: First—I am directly situated on reclaimed swamp land (in the Great Dismal, Virginia,) every foot of which is underlayed with shell marl, within about 4½ to 7 feet of the surface, much of which consists of decomposed shell, 65 to 75 per cent. carbonate of Lime by analysis. The land is exceedingly rich in vegetable matter, and finding it sour and producing luxuriant growths of sorrel for several years back, to the great detriment of my grain, grass, and other crops, I determined last fall, (which was an exceedingly dry time) to commence, and progress as rapidly as possible, until the whole was marled. I accordingly opened a pit 33 feet square, 4½ feet from the surface, which I worked up to the 15th of December, and with two carts marled eleven acres in about fifteen days, and what little water came in came from over the top of the marl, and was led by a small ditch in the bottom of the pit to a hole or pit still deeper, where there was a pump, and which was soon gotten rid of. Early in last month (Jany.) I determined to go on with my operations, although my pit was now full of water to the surface, and a very wet time. I accordingly started two pumps on the pit, and as soon as the water was lowered 4½ feet, (the surface of the marl,) I was well satisfied that it was a Herculean task to rid the pit of water by pumping, as the earth immediately above the marl was very porous, consisting of coarse gravel and a rock called bolders, and the water run in rapidly. My plan being previously arranged, I kept the pumps at work to keep the water stationary, while with other hands I dug a small ditch around three sides of the pit, (being the parts where the water came in at,) and about three feet from the edge thereof;—this ditch was sunk about 5 feet deep, which went six inches to *spit* into the marl, and in width, as small as a hand could work in to advantage, and which I was compelled to cut out and fill in by sections, in consequence of the flood of water flowing in. This ditch to be fully understood, is on the principle of the coffer dam, and which I immediately filled with clay, each section as I progressed, using the *water in the ditch for puddling* the clay, which was well stirred from the bottom until it was entirely filled. In digging by sections, it became necessary to keep the clay of the part filled in, from intermixing with the earth of the next, which was done by plank drove down into the marl at that end.

The utility of this ditch filled in with clay well puddled was now to be tested;—the pit was accordingly pumped out, which it took about three days with the two pumps constantly at work to accomplish, when I found that my labours were crowned with success—the three wet sides where the water previously poured by torrents, were effectually laid dry; on the other side not ditched, there is some little running in daily, but not of consequence to turn it off. I have been enabled to continue my operations, and would not be at all troubled with water, but for a spout or spring of water, as clear as crystal, that I struck soon after getting rid of the surface water, and which spouts up directly out of the bottom of the marl pit; this water is of a saline nature, not much unlike (according to my taste) the celebrated "Congress Spring" at Saratoga, and is altogether a handsome stream. I however continue my digging, and with two hands to fill the boxes and pump, can keep three carts busy without losing a single load, and which is done by leaving a large reservoir or space deeper than any other part of the pit at night, for the water to drain to and pump off at leisure during the day.

If requested,* I may hereafter give you an outline of my crane and fixtures for hoisting and emptying in the cart, which are very simple and efficient, though I am no draftsman. MAGNOLIA.

[*We *do* request it.—Ed. Am. Far.]

BOOK AGENCY.—Those wishing to engage in the sale of valuable agricultural works, are referred to the advertisement of Mr. C. M. Saxton, in our advertising pages—A number of the books described in the list, are on sale at our office.

AMERICAN FARMER.

BALTIMORE, MARCH 1, 1851.

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At the *State Agricultural Society Rooms*, No. 128 Baltimore st. over the "American Office," 5th door from North-st.

TO CORRESPONDENTS.—A number of letters and communications have been received during the past month, requiring attention at our hands, most of them, however, too late for this number, even if our space had permitted their insertion—Among them, from "A Subscriber," of Pongoteague, Va.; "J. D." of Sweet Springs, Va.; "T." of City Point, Va.—"F. M. Eichelberger," of Jefferson, Va.; Jno. Wilkinson, of Mt. Airy, Pa.; "Priapus," of Balt. Co. Md.; "Gulf," of Gloucester, Va.; "L. T. J." of Loudoun, Va.; "The Dutchman;" E. Reynolds, of Balt.; P. S. Chappell, of Balt.; D. G. Weems, of Md.; "Subscriber," of Salem, N. C.; G. Riley.

DRAINING TILES.—We have made arrangements to have a supply of the Tile advertised by us, manufactured and ready for delivery as early in the spring as the frost is out of the ground. We have had a few made, and are much pleased with the result—they can be examined at our office, and we will send specimens to prominent points, as we may have opportunity.

The New York State Society's next annual Show, is to be held at Rochester—The citizens of Rochester before their application was made to the Executive Committee, raised $5000, and offered to give bond for the payment of all the expenses that might be incurred by the Society, in connexion with the Show grounds—We learn by the Journal of the Society for Feb. that the offer was accepted—Our citizens are called on for $10.000 for a *permanent* location—the people of Rochester's proposition is for a single Show—Baltimore is a great and rapidly growing commercial mart, which in a few years will have a population of 3 to 400,000 inhabitants—Rochester is an inland town. A hint to the wise is sufficient.

GUANO FOR TOBACCO BEDS.—A correspondent in Anne Arundel Co. requests us to direct attention to the prize essays on Tobacco published last year, for the benefit of our friends in the tobacco growing districts—we have already attended to the suggestion, both in the last and present Nos.—He also says, that but for the suggestion of Mr. Millburn, in his Essay, he would have failed to raise plants for his last year's crop—by following his directions by putting at the rate of 1000 lbs. of guano to the acre into the beds, he had an abundance of lants.

GUANO.—Prices are unchanged since our last report, viz: Peruvian $47 a $48 per ton of 2000 lbs. and Patagonian $10 less. There is no Peruvian in first hands. There will not, we understand, be as large a supply as was anticipated.

VIRGINIA STATE AGRICULTURAL SOCIETY.—We had the pleasure of attending the annual meeting of this Society, held in the Hall of the House of Delegates, at Richmond, on the 18th and 19th Feb. The occasion enabled us to become personally acquainted with a number of our friends, with whom we were heretofore only known through the medium of our journal, or by correspondence—and were also permitted to take by the hand many others with whom we had formerly contracted an acquaintance at our State Shows, &c. The lateness of the month at which we returned, enables us barely to make a few remarks on the proceedings at the capitol, as we find our pages already filled, and nearly ready for the press.

The meeting was called to order on the evening of the 18th, and the President, the Hon. *Andrew Stevenson*, delivered a most powerful address, appealing to the agriculturists of the Old Dominion to bestir themselves to rescue their State from the downward tendency which she has for years been taking. He showed what could be done, by what already had been accomplished, in England, Scotland, and in New York, Pennsylvania, Maryland, and elsewhere, and declared his determination to go hand in hand with the foremost of the farmers and planters of Virginia, in arousing a spirit of activity and zeal in effecting so laudable an undertaking as that to which their attention is now being directed, —the improvement of their system of agriculture, and the availing of the vast facilities and resources which the State affords, for the purpose. As the Society requested a copy of the Address for publication, we shall hereafter make copious extracts from it, our space not now permitting to do more than allude to its general scope. But we cannot forego the opportunity of at once noting the emphatic declaration of Mr. Stevenson, that, although he had ever been a devoted politician, and would ever be found firm in his political principles, yet he would not support any man for a seat in the councils of the State, who was not an avowed friend to the interests of the farmers and planters, and who would not extend to them some portion of that aid which was daily being lavished upon every other interest in the State which asked for it.—He took the same view of the subject which the President of the Maryland State Society has on more than one occasion presented, that the farmers must maintain their own rights, if needs be, at the ballot box, and no longer suffer their interests to be trampled upon or neglected, whilst every other class is enjoying the favor and support of their legislators—that their's was the *great* interest of the country, embracing more than two-thirds of its population and capital, bearing its full proportion of the burthens of the government, and yet seldom receiving the smallest crumbs from the public treasury in aid of developing their resources and advantages. Mr. Stevenson avowed his readiness to unite with any number of the farmers of the State, to canvass, if necessary, their whole territory in vindication of their rights, and, we have no doubt, should this course be requisite, a legislature would be returned the ensuing winter, which would not fail to do entire justice to this paramount interest.

After Mr. Stevenson had concluded, we were called upon to address the Society—but this was rather out of our line, and we so stated to the meeting—nevertheless, we endeavored to give them, in our own plain way, the results of our observation as to the beneficial effects of combined efforts, by

means of Clubs and Societies, in producing a spirit of emulation and improvement, as had been manifested in our own and other States.

A committee was then appointed to devise some plan of action to be adopted by the Society, at an adjourned meeting to be held next evening. The following morning, the Committee met at the office of *Gen. Richardson*, Secretary of State, and by invitation we attended their deliberations. Among other recommendations, they proposed that the Society should ask of the Legislature the appointment by joint ballot, of an Agricultural Commissioner, who should be empowered to appoint two Agricultural Chemists and Mineralogists, one of whom to be located in the Western, the other in the Eastern section of the State—the Commissioner to make an agricultural survey of the State, to deliver lectures, at each county town, if deemed advisable, pointing out the general features of the soil, and the means of its improvement, and cause the same to be published by the county authorities, and at the expense of the county, or through the medium of the public press—the Commissioner to make an Annual Report of his proceedings to the Legislature. He is also to aid in the formation of agricultural societies and clubs, as auxiliaries to the State Society, and to disseminate information of every kind among the people, calculated to promote and encourage a spirit of improvement in the agriculture of the State—His assistants are to aid him in these surveys, when required, but their main duty to be, the analyses of soils and minerals, for which a charge of $2 is required to be paid by those having them made, to aid in defraying the expenses of the same. The salary of the Commissioner to be $2500 per annum, and his travelling expenses, not to exceed $500 additional—the Chemists and Mineralogists to receive each $1500, and the fees to be appropriated to the incidental expenses of the laboratory. It was deemed necessary to require this portion of the expense of analysis to be paid by the public, to avoid the indiscriminate use of the opportunity which would be afforded by the State's paying the entire cost of it. These are the main features of the recommendations, as presented by the Committee, through their Chairman, *Wm. Boulware*, Esq., of King and Queen, and subsequently adopted by the Society. The Legislature may, on their presentation, of course, amend the same, but it strikes us, from much reflection, as being the best mode of attaining the object in view. These views were suggested by us to the Chairman of the Committee of Agriculture in the House of Delegates of Va., at the commencement of the session—they are in accordance with the recommendation of Mr. Ruffin, in his address before the Talbot Co. Societies last fall, and are identical with the advice of Professor Johnston, of Durham, England, whose lectures delivered before the N. Y. Society, have been so widely disseminated throughout the country. The Richmond Club asked his opinion upon the subject, since his return home, and in his letter of reply, which is published among the documents of the Legislature, the views above presented by the Committee of the State Society, were strongly urged as the best means of attaining the desired ends.

C. C. Lee, Esq. of Henrico, then offered resolutions, from the same Committee, recommending that the Society hold its first annual Exhibition in the Fall of the present year, the precise time to be hereafter designated, to follow, if possible, immediately after the Maryland Exhibition, in order that those farmers and others who may be in attendance at the latter, from the Western section of Virginia, may be enabled to continue on the route to the Virginia Show. Mr. Lee stated that the recommendation was made in accordance with our suggestions, as being the most certain means of securing efficiency in the Society, and of the more thoroughly awakening the attention of the farmers to the desired improvement in their State—that it would be the means of drawing together large masses, who would not be attracted by other means, and that the annual gatherings thus brought about, would operate, by the interchange of sentiments, and by the incitements consequent upon competition, to arouse a spirit which will most assuredly redeem Virginia from the present deplorable state to which many portions of it have been reduced by an unskilful and improvident system. The evidences which we see around us in every section of Maryland, proclaim aloud what *can* be done—Virginians have as much spirit and as much energy as our people, and what has been done for Maryland, can be done for our neighbor—and we trust and believe that a ball has now been set in motion, which will roll on, guided and directed by the President of their State Society, aided and sustained by a host of worthies in her midst whom we could name, which will as certainly place her in that front rank of agricultural prosperity, to which her soil and climate so admirably qualify her, as she has heretofore stood in the politics of the nation. We shall hereafter have much to say upon this subject—we have returned from this, our first visit to this renowned commonwealth, more than ever impressed with the necessity of her improvement, and more confident of the ability of her people to effect such a revolution in her system as to make her territory once more teem with fertility, and her waste places again be covered with verdure. We are largely their debtor for the "aid and comfort" bestowed upon us in the extension of our subscription list to an unprecedented extent within the last 12 or 18 months, and we are determined to devote all our energies and opportunities to aid in the glorious work which is now begun. Gen. Richardson assured the Society, through the Committee, that the citizens of Richmond would furnish all the necessary means for the Show, to erect enclosures, fixtures, &c.

At the conclusion of the business of the Society, the President, in a most animated address, evinced the increased zeal which had been awakened in his own breast, and pledged himself to be ready with his time, his means and his talents, to secure the successful operation of the Society. "Once more unto the breach, dear friends," he exclaimed, in the language of King Harry, at Harfleur, and we will show to the world that we recognize no such fears as had been expressed by some, that our efforts are to fail. The electric spark passed from heart to heart, and all present, comprising the best talent and worth of this time-honored commonwealth, seemed to be animated by one common impulse, and that was, a determination to succeed in redeeming the agriculture of the State.

☞ We have received a bill of lading of two boxes, shipped from Mobile, by order of Mr. Magoffin, which we suppose contain the grafts of the apple promised some time since. Those who have already applied, and others who may wish to obtain them, are requested to send for the same, as we expect they will soon reach us.

MEETING IN AID OF THE STATE AGRICULTURAL SOCIETY OF MD.

At an adjourned meeting of the Committee of citizens of Baltimore appointed to raise the means for permanently establishing in this city a GREAT ANNUAL AGRICULTURAL FAIR, the following preamble and resolutions were passed:

WHEREAS, The three exhibitions held by the Maryland State Agricultural Society in the City of Baltimore, have demonstrated the importance to the business interests of this community of a great Annual Agricultural Fair to be held in this city:

And Whereas, the progressive success which has attended these Exhibitions has also shown that the enterprise is capable of being profitably extended and magnified, by giving it the aid of liberal encouragement and permanent location, which it is manifestly the interest of our citizens to do.

And Whereas, In the benefits to be derived therefrom to the business interests of the city, all classes and pursuits must necessarily participate, and it is proper, therefore, that such aid should come from all parts of the city, in such general but equitable distribution as shall apportion the burthen amongst all.

Therefore, be it resolved, That the sum of ten thousand dollars be raised for the purpose of purchasing grounds, and erecting permanent buildings and fixtures suitable for the accommodation of a great Annual Agricultural Fair, in or near the city of Baltimore.

Resolved, That in order to collect this sum, a Committee of eight persons be appointed from each Ward, as a collecting Committee.

Resolved, That a memorial to the City Councils, asking aid from the city, be prepared, and copies be placed in the hands of the above named Committees for general signature by the citizens.

Resolved, That the above named Committees be requested to enter upon the discharge of their duties by the fifth day of February, and report to an adjourned meeting of this Committee, to be held on the fifth of March.

The following are the Collecting Committees appointed under the foregoing resolutions:

First Ward.—J. M. Turner, Jacob Papier, Peter Mowell, Wm. H. Harrison, Wm. Colton, Daniel Greaves, James Gibson, Jno. C. Ely.

Second Ward.—Jno. W. Randolph, Dr. H. S. Hunt, Thos. Humphreys, Robt. Dutton, Louis Audoun, James E. Collins, Daniel Holt, Jno. Wells.

Third Ward.—James Hooper, Henry Lauderman, James C. Wheeden, C. L. L. Leary, Thos. Trotton, Jno. Wickersham, John Ahern, E. W. Robinson.

Fourth Ward.—Wm. Chesnut, T. Kelso, R. Lilly, Henry Reynolds, Jas. H. Millikin, George W. Herring, Geo. Sanders, Wm. A. Boyd.

Fifth Ward.—Hugh Bolton, Wm. Thompson, J. L. Yeates, D. L. Maulsby, Arthur M'Court, John Gorsuch, Chas. B. Green, Wm. Whitelock.

Sixth Ward.—Chas. G. Ridgely, Geo. J. Kennard, Chas. H. Bradford, John Dowell, Henry M'Elderry, Jno. F. Plume, Horace D. Swann, Jos. J. Stewart.

Seventh Ward.—Geo. Lovering, Alexander Nicholson, Mathew McClintoch, Henry Krebs, Richard Fonda, Harry Pentz, J. Ramsey, Thos. Stansbury.

Eighth Ward—Sterling Thomas, Jas. F. Purvis, Wm. F. Pentz, Jos. J. Turner, Isaac M. Denson, Owen Bouldin, John F. Connolly, Ewd. Kimberly.

Ninth Ward.—George Rogers, James Cooper, Amos Lovejoy, John Patterson, Asahel Hussey, Hamilton Easter, Marcus Denison, Wm. McCann.

Tenth Ward—Z. Barnum, Thos. Wilson, Robt. Hall, A. E. Warner, Robert P. Brown, Geo. M. Gill, S. Cariss, Richard Sherwood.

Eleventh Ward.—W. H. Gatchell, Adam Denmead, Wm. Lonev, Samuel T. Thompson, Andrew Gregg, Jno. S. Gittings, Jno. B. Seidenstricker, Jas. Curley.

Twelfth Ward.—Thos. E. Hambleton, Charles M. Keyser, Wm. Keilholtz, Matthew Bentzinger, J. C. Adams, Aug. P. Webb, Francis W. Elder, Wm. Devries.

Thirteenth Ward.—John Glenn, Alex. Murdoch, A. B. Davidson, Wm. H. Keighler, Peter A. Kelly, Jno. Hurst, George Harman, Allen Paine.

Fourteenth Ward.—James H. Carter, Chauncey Brooks, Jno. Green, Jr., William Woodward, Jas. Harvey, Benjamin Buck, John G. Hewes, John Haskell.

Fifteenth Ward.—James Hooper, Jr., John B. Reese, Jr., Wm. J. Wight, Gerard T. Hopkins, Asa Needham, W. C. Carpenter, Thos J. Hall, Christian Keener.

Sixteenth Ward.—A. G. Cole, James M. Lester, Conduce Gatch, W. G. Krebs, Francis Burns, John Sheckles, W. Sullivan, Joseph Simms.

Seventeenth Ward.—John S. Brown, Charles Reeder, Alex. Gould, Clark Cottrell, James M. Brannan, Wm. H. Harman, John Watchman, Wm. Trego.

Eighteenth Ward.—John S. Donnell, Joseph Brown, Matthew Clarke, Cyrus Galt, Jesse Hay, R. B. Porter, Wm. Browne, Charles Shipley.

Nineteenth Ward.—John W. Garrett, Dr. Thomas Edmondson, William George Baker, A. J. Hyatt, Chas. D. Slingluff, Sam. Landstreet, Chas. Myers, Alexander Smith.

Twentieth Ward.—Henry Snyder, Thomas Sewell, Alonzo Lilly, George Peters, Martin Lewis, Daniel Chase, Charles Towson, N. T. Dushane.

The Committee was authorised to fill vacancies and add to their number if necessary.

ALEXANDER MURDOCH,
Chairman.

SAMUEL SANDS, Secretary.

MANURING.—All applications of manure, which do not look to the permanent improvement of the soil, but merely to the growth of a single crop, are wasteful. It should be the policy of all agriculturists, in applying manure, to so concentrate their efforts, as that each field should receive such a dressing, with the aid of lime, marl, or ashes, when calcareous matter may be needed, as would not only carry it through a course of rotation, but leave the land at the end of such rotation in an improving condition. This may involve a necessity for decreasing the area of cultivation, but that should not interrupt the system which we commend, as less than one-half the land, if well manured, would increase the quantity of product, at a great reduction of labor, and improve the ability of proprietors to carry on and extend their efforts at melioration, until the whole of their arable lands were permanently improved. All fields improved upon this plan, must, necessarily, be got into clover, or grass, at the earliest possible period after the application of the manure, in order that, at the end of the rotation, a body of vegetable matter may be upon the soil, ready to be turned in at the com-

mencement of the succeeding one, to supply the place of the abstracted portion of the nutrient principles afforded by the manure applied previously. And it may be well here to impress these facts upon our readers:—*Lime*, *marl*, or *ashes*, must lie at the foundation of every improvement of the soil looking to permanency:—Every soil requires *mould* to make it productive, as without the presence of mould, or the materials for its formation, the effects of lime, marl, and ashes, must be circumscribed, as neither contains the principles of nutritive manures, which we maintain are essential to the perfection of every plant grown by man:—The food of plants must consist of *organic*, as well as *inorganic* substances, or a high state of productiveness cannot be expected. If we reflect, that what is termed the organic part of a plant, comprises about 97 parts of the 100 which forms its whole, and that these parts are not to be found in mineral bodies, but partly in the atmosphere, and more in putrescent manures, the necessity for keeping up a full supply of mould in the soil, will appear obvious to all reflecting, well judging minds.

REAPERS—DRILLS—Mr. BOLLING'S FARM.

From a very interesting communication from the pen of Edwin G. Booth, Esq. published in a recent No. of the Southern Planter, we make the following extracts:

"Before I dismiss the subject of wheat, I will remark, that during the last harvest I used one of Hussey's Reapers, presented to me by Mr. Robert B. Bolling of Sandy Point, who tried it, as well as McCormick's, giving Hussey's the decided preference, and designs to procure a larger supply of them. In the experiment or trial between the two kinds, I believe the committee reported in favour of McCormick's, which caused their more extensive use. Indeed, many of McCormick's work well for a short time; but I have never yet seen one which performed well two seasons without repair. I saw two, with some attempted improvement, on the fine Beaverdam farm of Mr. Corbin Warwick, last harvest—two having been tried the preceding harvest—one performing well. The two I saw last harvest had been tried and laid aside by the manager before our arrival. One was started out of the best parts of the two, and performed pretty well for about half an hour, when, from becoming dull or some other cause, it ceased to operate well. I am inclined to think one can be made on that principle to answer well under skilful management, but it will be difficult to keep it in repair, unless made in a more substantial manner than those I have seen. The blade of McCormick's is serrated on the principle of a saw, and notwithstanding the use of the reel to press the wheat to it, requires the resistance of strong wheat to cut well, and does not answer well in light, damp, or tangled wheat. Hussey's acts on the principle of shears, passing rapidly by the motion of a crank at one end between stationary shears of irons—the cutting being done by a lateral motion, both sides of the shears being sharpened—so that straw passing between them cannot well escape. Indeed, I am not certain that I saw a single head escape, which touched the shears, and neither shattering nor scattering to the usual extent, the amount of additional wheat saved must be considerable. It passes over undulating ground as well as level, except the draught when going up hill, which is less when going down. With both the machine passes around the field, after a path is cut by the cradle for the horses. The machine cuts lower than the cradle; and when mine first started amongst the stubble, not being tall enough to fall back, but falling amongst the shears, it clogged or choked. The best way is to thrust it into the standing wheat with a quick motion of the horses. I only used two, driven with reins, the driver standing on the machine behind. In McCormick's, from different structure, the driver, I believe, must necessarily ride one of the horses, which may be no disadvantage, except that I think carriage horses, which I used, can be better guided with the reins to which they are accustomed. With McCormick's, the hand pulling out the wheat walks at the side, and the labor is severe. There is one advantage in this, as the wheat can lie while the horses are passing around afterwards. With Hussey's, the wheat is raked out immediately behind by a hand riding on the machine, which creates the necessity of removing it before the horses pass around again. The hands, instead of following immediately after Hussey's machine, should be scattered at proper distances around the field, and if they finish the operation of tying up, they should be occupied in carrying it to the shock; if the horses press upon them, there is no other alternative than to remove it one side and tie up afterwards—I have only tried it on high land where there were no water furrows, and generally commenced it the side of horizontal ditches. I have not seen them operating on low grounds with deep water furrows. It seems to me, that both kinds must encounter some difficulty in such a position. If the little wheel which upholds the platform should run in the furrow, it seems to me that the blades must touch a convex surface. Again, if passing across the furrows, if deep, they are in danger of striking the opposite bed. I make this suggestion, hoping that some person of more experience may obviate the difficulty. Mr. Burgynn, who cultivates so extensively and judiciously on Roanoke bottoms, used nine of Hussey's, as I understood, with entire satisfaction, preferring it to McCormick's, so I take it for granted, this difficulty is not serious.

"As I am only writing on such subjects as are suggested to my mind by the current of reflection, I will in this connexion remark, that, chiefly in the Northern States, I have had the opportunity of seeing nearly every description of drilling machine, and several in operation, and the wheat after it came up. My opinion is, that prepared as land usually is there, or half as well as I understand is customary with Mr. Hill Carter, (who reports satisfactory experiments with Pennock's,) they will answer well, and equal the published accounts. But any person who expects them to answer, where there are stumps, rocks, clods, or hard ground, will be disappointed, and I suppose ought to be. The wheat falls behind the instrument which opens the ground for its reception, and is dependent chiefly on what closes upon it for a covering, indicating the necessity for loose and well pulverized earth. A small bush or harrow, to follow and attached to the machine, I should think advantageous. I have seen them drawn by two horses, hitched tandem fashion, and also two side by side. Three persons attended the one driven tandem—one to guide the horses, one walking behind the machine, the other at the side of the wheel horse, to keep him precisely in the right place—and the operation, when thus performed, seemed much the

most accurate, and the wheat looked beautiful after coming up. Still, some was left uncovered, and perished I suppose, or was sustained by the gentle abrasions of the adjacent ridges. I also saw one to sow a single furrow and to be attached behind a plough, the wheat falling in one furrow, to be covered by the succeeding. I did not see it in operation. It struck me as impossible to guide a horse, or more particularly a mule, with sufficient accuracy to sow wheat in this way. It also appeared to me, that the wheat would often fall on the hard ground at the bottom of the furrow, and likely be covered too deep, and in turning around there would be difficulty, as some places might receive too much, some not enough, and some of the furrows be crossed. It would probably answer a better purpose in planting corn, where a single furrow on a bed would be sufficient. Not having seen it operate, my opinion is worth but little. I expresss it freely about this and other machines, hoping that if I err, some person more judicious may correct me. Indeed, I commmenced these articles to urge a more free communication amongst farmers and with the hope of eliciting communications from others.

"Since our improvements to carry grain to market, and facilities of procuring manures to make it, the subject has become more interesting and important. Mr. Robt. B. Bolling is, I suppose, about the largest wheat sower and wheat grower in the State—the result in part of an extensive and judicious system of improvement, by the use of lime chiefly. "It is said that 'He who makes two blades of grass grow where one grew before, confers more benefit on his country, than the whole race of politicians put together.' Mr. Bolling has made six bushels of wheat where one grew before, by a permanent improvement. A calculation of the comparative benefit I leave for others, particularly if he would communicate the "*modus operandi.*" His hospitable reply to all inquiries is, "come and see;" but many cannot do so, though they would be compensated for a long journey. I have been on the spot commanding a view which Mr. Jefferson considered to be worth a trip across the Atlantic—it may be to some—I should however consider a view of Sandy Point estate much better worth a trip around the world. A view of 2,700 acres in one compact body, without a single acre of waste land, and scarcely one that is not under the highest state of improvement, constitutes a spectacle not to be encountered in any other state I have met with or read of. But if I were to undertake a description of this farm I should occupy your whole number; I must however refer to the machinery on this estate propelled by a steam engine, which saws plank, shells corn and grinds it; threshes wheat, and not only fans it, but sieves it ready for market. An article which could do justice to the various operations and improvements on this farm, would compensate your subscribers during the whole of your editorial career. I have been drawn into these allusions without any intention of attempting the task, and return to the subjects from which I digressed."

CLOVER CULTURE.—Wm. Todd, Esq. under date Feb. 17, says he has had an experience of 17 years in farming in Frederick Co. Md. and a long time previous to that in Lancaster Co. Pa., and he has never seen an abler paper on this subject than that of Mr. Ruffin's, which it will be seen is concluded in this No.—Mr. T. adds, "that it was clover and timothy, clover especially, that has made Lancaster County what it is, and if it was judiciously managed, under similar circumstances, would have the same effect everywhere."

CHAPPELL'S FERTILIZER—GUANO.

To the Editor of the American Farmer—

SIR:—Your correspondent, Mr. Baer, wishes to know whether I am certain there was no difference in the composition and location of the three acres upon which I experimented with Guano and Chappell's Fertilizer; then proceeds to state his knowledge of the composition of Chappell's Fertilizer, and his experience in the use of various manures, and concludes by saying, that I will not have done Mr. Chappell and the public justice, until I shall have made known the location and composition of the aforesaid acres. As it is my desire to do justice to both, I shall state, that the three acres above mentioned, were located in the same field; the first, upon which Chapppell's Fertilizer was used, and the second, upon which guano was used, adjoining each other; the third acre, *improved*, about 15 yds. distant. I did not analyze the soil of each to ascertain their component parts, but judging from their proximity, contained, as they all are, in so small a compass, I should say there was not much difference in their *composition*; at least, not so much as to cause so vast a difference in their yield, as was shown in my report contained in the Dec. No. of the American Farmer, page 213. In addition to my experiment with Chappell's Fertilizer, I stated the experiment of several gentlemen with the manure, which went to show a perfect failure. Since Mr. Baer is so well informed with regard to the effects of certain manures mentioned in his article, and as his knowledge is of the very best kind, *experimental*, in justice to the venders and manufacturers of various manures, "et pro bono publico," he should make known his experiments therewith. If I shall be instrumental in urging Mr. Baer to this, wherein I have failed to render Mr. Chappell and the public justice in making known my experiments, I trust I shall have amply compensated them. GEO. RIVES.

Sussex County, Va. Feby. 7, 1851.

RECIPES FOR MAKING WHITE WASH.

1. Take 1 peck of unslaked lime, put it into a tub, pour thereon a sufficient quantity of water to slake it, when slaked, add half a gallon of chamberley, and as much water as will reduce it to the proper consistence of white-wash,—mix the chamberley first, and the water afterwards.

2. Slake 1 peck of lime in a tub, then add thereto the paste made from 1 lb. of rice flour, free from lumps, stir until thoroughly mixed together, and then add as much boiling water as will reduce it to the proper consistence of white-wash.

3. Slake a peck of lime in a tub, add water to bring it to the consistence of cream, and, when cool, add as much new milk as will reduce it to the desired thickness of white-wash, taking care to stir well while adding the milk, which must be poured in slowly.

For inside work, we doubt whether any thing in addition to lime and water is an improvement; some add a handful or two of salt, but that in damp or rainy weather gives, and as a consequence the surface becomes streaky; others add boiled glue, but this causes cracking. We have seen it recommended to grind unslaked lime down in linseed oil, as white lead is, and thus form a paint, but of the value of such preparation we have no personal knowledge.

WINTER THOUGHTS,

BY PATUXENT PLANTER.

In a recent poetic effusion of our talented and beautiful countrywoman, Mrs. Neal, we find this truthful picture—so homelike and so agreeable to our feelings:

"I care not how fiercely 'tis storming,
How heavily dashes the rain;
The wind hath an impotent fury,
Its shrieking and howling are vain.
The curtains, draped closely o'er the casement,
Have muffled the sounds as they come;
I hear but a sorrowful murmur,
That ever is music at home.

"For here I can gather my treasures
Of books, both the new and the old—
Rare *poems* that oft, in their quaintness
New thoughts and bright fancies unfold.
We fear no "vexatious intruders,"
The rain is our warder to-day;
No visitors surely would venture
The dripping and desolate way."

Such a day and such a scene should be no more welcome to any than to the *provident* farmer. It is an opportunity that rarely comes too often, and when it does come, ought to be improved. If indeed he has been provident and careful, he hears the howling of the tempest with no terror—he compassionates those who may be suffering, but for himself and *his own*, he feels no dread, but rather a lively satisfaction that through his foresight and industry he can congratulate himself that his dwelling is tight and warm; his domestics well clothed, well provided and warmly housed; his wood house filled and wood pile large; the stock comfortable in their warm sheds and stables, with bedding enough and mangers full. All things wearing the air of contentment and peace, with, it is to be hoped, his own heart filled with thankfulness to the Giver of all good! So situated, where is there among the diversified classes of mankind to be found one better suited or better prepared than the tiller of the soil, to enjoy that fireside repose so happily pictured by the poetess. Now is the moment for the farmer to cast up his accounts—to write out his future plans, lest they hereafter escape him in the hurry of more busy moments; to examine into his expenses; to arrange for future operations, or to curtail expenses. And when this labor has been gone through, what a delightful time to improve his mind, to hold converse with the experience of those who have lived long before him, or to chat with his contemporaries, as they are respectively summoned from different parts of the country at his bidding, for he ought to have them all snugly *bound* in his library. He can have "rare poems," learned dissertations, eloquent speeches, elaborate treatises, pleasant "conversations;" in a word, he can be grave or gay; he can read poetry or prose, and talk with men of all ages and on all subjects connected with his business in life, from the classical poet *Virgil*, down to the witty "almanac maker" *Solon Robinson*, who has a happy faculty in recommending agricultural implements, as manifested in his "*Planters' Pictorial Almanac for* 1851." And as it is possible some of your readers may not have seen this *original* work, I beg leave to quote one or two of the *inimitable* paragraphs it contains, as a specimen of the whole work. In recommending a "*Root Puller*," he says: "Now, here comes another implement. If there are grubs and roots in the way, here is a tool that will rake 'em out faster than a fine-tooth comb would rake —coons out of niggers' wool. Yes, sir-ee, with a couple of yoke of oxen hitched to it, you may

"Hang up the mattock and de hoe,
An take down de fiddle an de bow,
For there's no more work for poor old Ned,
Grubin up de stump whar da grow,
For no more dare can da grow."

Again, in recommending Messrs. Allen & Co. as agents for the purchase of stock, after giving a wood cut of Messrs. Reybold's fine Oxfordshire Buck, he says: "An dare was nudder *nice* looking ole gemmun come along, too, wid a white beard almost as long as the wool on dem sheep, an so I tink I ax him bout him. So he talk jis so he was all dixshumary, and tell me he lib way up in dat snow-country where nigger go about jis like stray dog got no massa, an all his lamb what come in de winter freese to def. An he say all dis sort of dem sheep wid long wool, all one, wid good many name: Cotswold, New Oxford, Leicester, Bakewell, all *bake well* an *eat* well, too; an if anybody's massa want any of dem, all dey got to do is, send de letter in de tellumgraff, an Misser A. B. Allen send um de right sort sheep in de steamer, wid wool as long as coon tail."

So much for African classics on agricultural matters. It is to be hoped that there are many planters who are in a situation, like the one I have attempted to describe, to enjoy these stormy days, and who will embrace every such opportunity to improve, mentally, physically, and pecuniarily.

Mr. Ruffin's able lecture, at Easton, last autumn, contains many practical hints and suggestions which ought to be carried into practice by our planters, and many views which should be followed by our State and county associations.

Guano.—Your Virginia correspondent "T. S. P." says, if Guano and corn, or other seed, come into contact, "the seed will certainly be destroyed." I differ with him, for I have had considerable experience in the use of Guano, and never knew it to destroy seeds, however small, when it was used at the rate of from two to four hundred pounds per acre. I have sown it in drills with wheat, in hills with corn, in the rows of onions and peas, and all vegetated. By this means I saved the labor of first covering the Guano, and then covering the seeds. I always sow it in the *trench*, drop the *potatoes*, whole or *cut*, as it may happen, and cover all up together, and they never have failed to vegetate well. Such, also, is the experience of many of my neighbors. It is also on *particular* kinds of land that Guano is of any use at all. It has *no effect* on most of my land, and is of no use, as *chemical analysis has clearly shown*.

It is a subject of sincere congratulation to me to find that the "*Suggestion*" I made in your January number, as to the establishment of "*market commission houses*" in Baltimore, has met so universally with approval, and been so well and ably seconded by the country press. I am happy to learn that already Messrs. Johnson & Magruder, W. L. Bateman, J. B. Dixon, and others, have issued their cards, and are now ready to receive produce of every description in that line. There is every reason to believe that they will meet with that success which is due to such enterprise and readiness to serve the farming community. It being a new business, it may require some time to get the public interested in it to a great extent, but if it be persevered in a single year, there is no question but that it will amount

to an immense trade, furnishing employment to hundreds, and carry into the pockets of the producers, thousands of dollars, from the sale of articles that now, or heretofore, have only rotted on the land, or become nuisances, rather than sources of wealth.

More for the sake of testing the practicability of this system, than from any other cause, I made up a lot of "odds and ends," and put them in a two horse wagon, with a small boy for driver. He left at 11 o'clock, and returned about dark; the articles had safely been delivered on the cars on the Annapolis railroad, and reached Baltimore that night. The whole expense was the use of the horses, boy and wagon for half a day, say $1,50, and freight, $1,75, being in all $3,25. Now, had I sent them to Washington city, I should have been compelled to have sent a *man*, and be gone two days, and the *expenses* at the *same rate*, would have been for man, horses and wagon, $6, and toll, lodging at the wagon stand, &c. at least 75 cents, which would be $6,75. Here, then, was a clear saving of $3,50, besides the almost moral certainty of not effecting the sale of some of the articles sent, and probably not getting as good a price for the articles sold as I succeeded in doing in my first experiment under this "marketing system." Here is a statement of what I sent to Mr. Bateman, and the amount I received:

6	Turkeys, at $1.25 each,	$7.50
6	old Hams, at 12½ cts. per lb., 63 lbs.	7.87
2	barrels of Potatoes,	6.00
9	dozen Eggs,	1.12½
2	bushels black Walnuts,	.80
½	do Chesnuts,	.50
1	do Onions,	1.25
		$25.04½

These $25 have been by this little trouble *saved*, I may say, for those trifling *leavings over* would have been consumed uselessly, or been wasted, perhaps.

One other great consideration is, that by this system we get rid of the injurious influences that our negroes are subjected to by their frequent visits to market in our large cities. It is well known that *all* who frequent the markets are, sooner or later, corrupted, and become worthless to their masters; besides, they often form acquaintances who aid them in making successful escapes. The system I desire to establish, is one of long standing in England, and is there called "green grocer's business." These merchants or "*green-grocers*," act as agents for country people, and keep groceries, which they often exchange for produce sent them by their customers. In that way, a thriving, notable housewife could furnish her pantry with all that her household required, at a cost of but little trouble, and hardly missing the articles which she sold.

Now, let me earnestly appeal to my fair countrywomen to come forward and sustain this new system, by which *they* can have *their own* commission merchants, and keep their separate books, and have their pin-money free and independent of their lords, earned by their own exertions, and not received as gifts, grudgingly bestowed. Ladies, be free, and no longer dependent; the door is now open to a field of profit, one peculiarly appropriate for your cultivation; on it you can exercise your talents and enlarge your sphere of action. How delightful, my fair friends, to behold the triumphant smile that would illume your sweet faces next New Year's day, when you presented your good-man with your green-grocer's account for the year, showing a nice little balance in your favor, after supplying your house with all the groceries, of every description, even with that "old rye" your husband's friends praise so much and drink so often, and that old Odessa brandy that *he* himself (seldom, but *sometimes*) smacks his lips over and pronounces "*mild and well flavored.*" Oh! think of the blessings he would lavish on you, and the hearty kiss he would bestow when he presented a handsome New Year's gift as a reward for your industry, and a token of his grateful affection. Be then stimulated to exertion; you have only to *try*, and success will assuredly follow, as *effect follows cause*.

P. S. Talking of or *to ladies*, I am obliged to put a *postscript*, to say that the compositor must excuse my bad writing, for I write with a "gray goose-quill," plucked from the wing of one fattened by my mother upon a "*new and never-failing principle*," *id est*—as much as it could eat until it got *fat;* and the quill oozes oil so that the ink hardly will make an impression. Where is there another matron can give her son a goose so fat that the quills exude oil as they write. I hope the reader may consider the article fat enough to be considered a "*pretty slick one.*" P. P.

WASHINGTON CO. (MD.) FARMING.

To the Editor of the American Farmer:

SIR:—In a former No. of the Farmer, you were pleased to express the opinion that some account of my limited farming operations might be interesting to your readers. I believe that my mode of farming exhibits nothing very new or remarkable, but nevertheless I submit the following brief statements respecting it for your consideration; but it must not be supposed that a plan which has met with some success in the limestone lands of this valley, will be equally successful in the red sand stone soils of Frederick county, the granite and slate soils of Baltimore county, or the alluvion of the Eastern Shore, *without important modifications.*

Any improvement which may have taken place in my land, appears to me to be owing to the following causes: First—The application of as large a quantity as possible of barn-yard and stable manure, *in its recent state*. Manure which has been left lying in the yard for many months to be bleached by the sun and leached by the rain, has lost half its value. I always apply it to the land as soon as I conveniently can. When the manure requires to be removed from my stables, I have the cart or wagon brought to the stable door, and the manure immediately transferred to the fields. In the spring, everything in the shape of manure, which I can "rake and scrape," is at once applied to my corn-fields. Barn-yard manure, stable manure, chip manure, hay manure, rotten straw, corn-cobs, &c., are all spread on the land and ploughed under; and in order to prevent all waste of liquid manure, I supply my yards and stables with as large a quantity of vegetable matter as possible. There are several tan-yards in this vicinity, from which I procure every year many loads of the refuse bark thrown from the vats, commonly called "tan-lowe." The most decayed portion of this, I spread over my yards and in my stables, sometimes to the depth of a foot, where it soon becomes saturated with the urine of the animals, and mingled with their droppings, and forms an excellent manure.

In the second place, I apply to my land composts formed of vegetable and animal matters. For this

purpose, I procure from the above mentioned tanyards all the fleshings, leather-scrapings and refuse hair, that I can, which I combine with the rotten tan-lowe, refuse lime and a small quantity of plaster. If the tan-lowe is too recent, it must be mixed with a larger quantity of lime or ashes, to neutralize the gallic acid, and decompose the woody fibre. Sometimes I have placed my bed of compost in such a situation that the water in which the hides have been soaked, can be thrown upon it. This water contains blood and other animal matters in solution, and contributes much to enrich the compost. Such composts have an excellent effect upon the soil. But other forms of vegetable matter are also useful. During the last autumn, (which proved to be very dry,) a neighboring miller drew the water off from his mill-dam, and gave notice that all who wished might haul mud from it on to their lands. This mud consisted principally of decayed leaves and sand, and had been accumulating for many years. Having a five acre field near the dam, I hauled on to it about 150 wagon loads of the mud. In the spring of the year, this was spread, ploughed under, and the field planted with corn and pumpkins. The growth was prodigious, and quite reimbursed me for all the extra trouble.

But again—I apply to my land all the refuse ashes I can procure. In the adjoining villages, I can generally collect 300 or 400 bushels in a year, which I spread broad-cast over my corn and wheat fields. I have also, more than once, spread the ashes and brick dust from the site of a brick-kiln, over many acres of land, with an excellent effect. Soap-suds is also an article well worth applying to some useful purpose. A pound of soap probably contains as much fertilizing matter as a pound of Guano. If there are four millions of families in the Union, each of which uses only one pound of soap a week, it will, in a year, amount to more than two hundred millions of pounds, which at two and a half cents a pound, would produce five millions of dollars. Could all this soap (dissolved in water in the form of soap-suds,) be carefully applied to the soil, it would save the expense of the importation of an equal amount of Guano. Certainly the soap-suds thrown away by each family might be sufficient to raise ten bushels of wheat in each year.

Franklin says that "money can beget money;" so can manure beget manure. If a farmer has enriched one acre of his land, with the produce of that acre he can enrich another. If he has raised one good crop, let him carefully save the manure arising from the decay of its vegetable matter, and he can raise another good crop; that is, if his land contains the necessary mineral ingredients.

When I commenced farming, I supposed it would be indispensable for me to lime all my land. For this purpose, I built a lime-kiln, and covered one or two fields with lime at the rate of 70 or 80 bushels to the acre. But I soon begun to reflect that a soil resting on calcareous rock, and probably formed by its decomposition, must contain as much calcareous matter as could be required. Besides, I could not perceive that the fields which I had limed improved any faster than those which were not limed. I therefore gave up liming altogether, and turned my attention to other modes of enriching my land, as described above. But in soils which contain no lime, the application of calcareous matter is doubtless the foundation of all good farming.

The forming of composts and applying them to the land, is a laborious undertaking, especially if the quantity be large. It is therefore well worth inquiring in what cases the separate ingredients will be as useful to the soil, as the compost formed from their combination, for in agriculture the great problem to be solved is, how to diminish the amount of labor and increase the amount of produce as much as possible. It seems probable that in cases where there are no volatile ingredients which require fixing, the separate articles applied to the land will be as useful as the compost, and thus save much labor. But it must be noted that in calcareous soils, vegetable matter may be applied to the land in a much more crude state than in other soils, because the calcareous matter in the soil decomposes and neutralizes the vegetable acids, tannin, woody fibre, &c. and thus prevents them from injuring vegetation. DISTRICT No. 7.

A NORTH CAROLINA FARMER.

To the Editor of the American Farmer—

As a citizen of the "Old North State," I desire that you will permit me to lay before your readers a brief description of one who, as a farmer, ranks among the first, not only in North Carolina, but in the United States, and behind no man in gentlemanly accomplishments and all the good qualities of head and heart that constitute a gentleman.

I have not asked the gentleman's permission to hold him up thus publicly to the gaze of the community, for I consider one whose reputation as a gentleman and farmer is as broad and as enviable as that of him whose name I shall presently give, as much a public man, and as much liable to be spoken of in a public way, as a politician, a minister, or any other public character.

The gentleman whose character I shall here endeavor to portray, is well known to me, and perhaps to you, and the longer our acquaintance continues, the better I like him, and the more highly I learn to esteem him, both as a gentleman and a farmer. I have enjoyed the hospitalities of his delightful mansion, heard his interesting and instructive conversation, seen his vast fields of wheat and corn while yet in a state of verdure, and viewed his splendid farm and the various improvements thereon, until (must I say it?) I actually felt an envious feeling creeping into my bosom and endeavoring to supplant the admiration which had been previously excited. He has been liberal in his expenditures for fertilizers, and now has his farm in a higher state of improvement than any other planter on Roanoke river, (or elsewhere in North Carolina) with, perhaps, a single exception—his brother. Lime, plaster, peas, clover, and the various other fertilizers, are used abundantly on his plantation, and with the most gratifying results, while his machines for reaping wheat, by horse power, and for threshing it, by steam, are far ahead of anything else in North Carolina. These improvements were introduced into the State by the gentleman of whom I speak, which, at once, shows his public spirit and enterprise over those of other citizens of the State. It is useless to attempt longer to conceal the name of this accomplished gentleman and farmer, for every person who knows anything of him, will at once recognize in this imperfect sketch the character of Col. THOMAS POLLOK BURGWYN.

At Alveston, his residence, Col. B. has one of the most handsome gardens I ever saw, laid out and put into a state of cultivation by an experienced English gardener, and to be irrigated by a

fountain which Col. B. intends having in the midst of the garden. This garden will supply vegetables for all the farm hands, and be an ornament to the place.

At Occoneechee, the residence of the overseer, Col. B. has a large brick barn, in which is a steam engine for threshing wheat, good negro cabins, (a perfect town of them,) and many improvements which are new and important; but the greatest of them all is, perhaps, a wall or embankment about one mile below the overseer's house, now being erected, for the purpose of preventing the overflows of the river, which frequently destroy entire crops in the low grounds.*

But to leave the farm, which is in the highest state of improvement, I must speak, ere I close, of the Colonel himself. He is remarkable for his generous hospitality and public spirited liberality. He lives on the best of the land, and ever extends that hearty welcome and pleasant greeting to his visiters which is calculated to make them feel perfectly at home and enjoy their visits. The Col. is about a middle-aged man, of fine appearance, courtly manners, and very handsome. He is one of the most intelligent and accomplished gentlemen of the State, and reads considerably.

Such is a brief and very imperfect sketch of one to whom I am proud to point as *"a North Carolina Farmer."* DAVIE.

[*As we have great confidence in the science, skill and practical knowledge of Col. Burgwyn as a farmer, and know that whatever he does do, he does well, we should be much gratified if he would favor us with a paper upon the subject of his mode of forming embankments.

We should also be pleased if he would give us an account of the operation of the Reaping Machines used by him, whether they act well and are as economical as regards the conservation of grain and straw, as the cradle.—*Ed. Amer. Farmer.*]

"SHINNEY" PEAS.

To the Editor of the American Farmer.

My answer to your inquiries (addressed to me in your last No.) as to my trial of "Shinney" peas, will be of very little if any value. Still, when so called upon, it might seem wanting in courtesy to decline answering.

The few seeds sent to me by R. Chisolm, Esq. of S. C. in a letter, enabled me merely to observe the kind of product, but not to compare the yield with that of other peas. But the peculiar color and appearance of the seeds indicated that the kind was one which I had before tried, and rejected—and the growth seemed to confirm that opinion. When I was in South Carolina, seeds of a pea that seemed identical with the "Shinney" were given me by the Hon. John C. Calhoun—and the kind was recommended by him as valuable—and also by Mr. Seaborn, now editor of the "Farmer and Planter." I did not remember the particular grounds for preference which had been stated to me by these gentlemen—and formed my opinion upon my subsequent culture and observation, for two or three years. The first formed peas ripened moderately early; and the plant continued green, and to produce peas until killed by frost. Whether this extended and gradual production was greater in amount than the yield of other kinds, which ripen nearly all their peas, within a much shorter time, I did not observe—nor was a greater production then suspected.—This gradual formation of the seeds, was to me one objection. Another was the great and unusual difficulty of beating the peas out of dry pods.

The general color of the seed is light brown, of different shades, and small specks of darker or different hue. This description made from recollection, may not be precisely correct. But the appearance of the seeds is peculiar and well marked—and they would scarcely be mistaken by an observer for any other kind. Still, the "Shinney" pea of Mr. Chisolm, though the same in appearance, may be a different kind from that which I formerly cultivated. And even if the same, there may be more value than my slight observation enabled me to learn. Having been absent from home for six weeks of the latter growth of the seed sent by Mr. Chisolm, I had no opportunity of observing whether the gradual and long continued successive forming and ripening of seeds agreed with the kind I had before cultivated, and suppose to be of the same kind. EDMUND RUFFIN.

CULTIVATION OF THE RASPBERRY.

In compliance with the request of a subscriber, we give the following directions as to the culture of the Raspberry, about which there is no difficulty.

The roots of the Raspberries may be planted either in spring or fall. If in the spring, *March* is the best month—if in the fall, any time between the 20th of *September* to the middle of *November*, will answer. After planting the roots, should a drought occur, they should be watered every few days until it may rain.

Soil. A deep sandy loam suits them best. Give the ground in which you intend to form your plantation, a moderate dressing of well rotted manure and ashes, say, 7 parts of the former to 1 of the latter—or a *compost*, formed of equal parts of wood's-mould and well rotted dung, or one formed of one part stable dung, two parts marsh mud, and one part ashes. This fruit delights most in a moderately moist soil, with an open exposure, and if somewhat shaded, so much the better.

Planting. In selecting the plants, choose the suckers of the previous year's growth, giving a preference to those of vigorous growth. Have them dug up with as little mutilation of the roots as possible, giving a preference to those whose roots are the most fibrous, and whereon near the bottom of the stem you may discover buds, as these will form shoots next summer. Trim the roots and cut away any old hard, woody stumps.

The ground should be carefully dug after being manured, and then raked. Then dig a hole sufficiently large to admit the roots being spread out, without any cramping, and deep enough to let the plant stand as deep as it did in the nursery. Spread the roots out regularly, and fill up with mould, pressing it down with the foot; then tie up the vine to a stake, or to the fence, as the case may be, and cut away about one-fourth of the top. All wood of 2 years' growth must be entirely cut away down even with the earth, and none but the wood of last year's growth suffered to remain.

Distance apart. Four feet, each way, is a good distance to set the vines apart. Some set them 3½ by 4, others 4 by 6; we think, however, that 4 feet, each way, is distance enough to secure good crops.

Pruning. Towards the latter part of February, or beginning of March, *if the weather be mild*, all the old stems which bore fruit the previous year must

be cut off down to the earth; so also must all the stems of the previous year's growth, except 4 or 5 of the strongest and most vigorous. Clear off all the old wood from the bed, tie up the remaining stems, spread manure, or compost, as recommended above, dig it in lightly around the roots, taking care to avoid injuring them, by not going too deep; finish by raking.

Subsequent culture. Keep down the weeds, the earth open, and water in all times of drought.

THE SHINNEY PEA—GUANO—FERTILIZER.

BURLEIGH, SUSSEX Co., VA. Jan. 13, 1851.

To the Editor of the American Farmer—

DEAR SIR:—Noticing in your last issue a call upon those to whom you kindly distributed parcels of the "shinney pea," that they would furnish you with the result of their experience, being one of that number, I cheerfully answer your call by giving the mode of cultivation and yield of the parcel sent by mail, for which I beg you will receive my thanks. I received per mail from you sixty-four shinney peas. Immediately after receiving them from the office, I caused four furrows to be run with a heavy two horse plough (No 9 of Watts' cuff and brace plow, by the bye, the best plow for every description of land in America, and why it is not more used I cannot conceive, unless the farmers of Virginia prefer supporting those who manufacture showy plows, made in yankee land, instead of patronizing the industrious, ingenious mechanics that dwell among them,) throwing up a ridge 4 feet wide, and broken 8 inches deep—A heavy harrow was then run twice over the ridge. The land was light, but in good heart; yet wishing to obtain a good return, I applied one bushel of stable manure, intimately mixed with one bushel of mould and two gallons of plaster. This mixture was regularly spread on the ridge and hoed in with tilling hoe, and then hand raked the entire bed. A furrow was then run down the centre of the ridge, and the peas planted two feet apart, dropping 2 peas to the hill, making thirty-two hills. In the cultivation, the five tooth expanding cultivator, (made on the farm) was run three times during the season on each side of the plants, and kept clean of grass with the weeding hoe. At every working, a little earth was drawn around the plants—the season was very fine. The 14th day of September I had them gathered and hulled by a very careful old woman, and measured them myself. The product of the sixty-four peas, or 32 hills, was precisely two gallons, ½ pint. I attempted to do justice to the "shinney pea" in the preparation of the soil, and its cultivation; yet doubtless many of those who received the parcels of peas will report a much larger return than the one above given.

The shinney pea is identically the same pea that we have in this and the adjoining counties known as the "coffee pea." It originated with Henry Scott, Esq., of this county—he picked six from a coffee bag and cultivated them during his life, and gave them the preference above all other kinds. I also planted on the same day three table spoonsful of the Chickasaw pea,—the preparation of the soil and cultivation the same as that given to the "shinney peas." The yield was 1 bushel 1½ pints. Last spring I purchased 515 lbs. of guano, and three barrels of Chappell's Fertilizer, to apply to the cotton crop. The land was exceedingly poor, growing nearly half bushel of corn to the acre in 1847. The guano, mixed with 5 bushels of plaster and earth was applied broad-cast to 3 acres of land, and ploughed in seven inches deep as fast as spread—harrowed, ridged, and planted the land. The land (2 acres) to which the Fertilizer was applied, was nicely ploughed about 8 inches deep; the Fertilizer sown broad-cast and well harrowed in—land ridged and planted,—the cultivation the same. Nov. 21st, picked from the guanoed lot 400 lbs. of seed cotton;—on the same day picked 150 lbs. from the lot on which the fertilizer was applied. What became of Messrs. Guano and Fertilizer I know not; but this much I am confident of, *they did not* injure the land, as I feel certain the enormous crop yielded would have been produced if the land had never felt the renovating effects of either. I shall look out for them to act wonderfully upon the coming crop of hen-nest grass and running briars, and hope my neighbors will remember when they tried this great improvement, that it was only at a cost of $5.25 per acre, and it was accomplished by "Guano and Chappell's Fertilizer," and that I received in place of $26.25 the great sum $16.50, and a few cotton seed. So much for my experiment with Guano and the Fertilizer; yet I intend giving the former another trial next spring, as there is so much to be made by its use. Truly yours,

THOMAS E. BLOUNT.

LIEBIG'S THEORY AT HOME.—Professor *Schulz* of Germany, in a review of Liebig's theory of agriculture, says:

"*Liebig's theory is, to my knowledge, no where used by any agriculturist*"—and

"We say, that any farmer who may rely upon the atmosphere to supply all the *carbon* and *ammonia* needed by his plants, as contended for by professor Liebig, will never make a crop. The fallaciousness of such a theory, is opposed by the universal experience of the agricultural world."

As professor *Liebig's* mineral manure, for which he obtained a *patent* in England, has resulted in a lamentable failure, we presume we shall hear no more of that most fanciful and romantic notion, of the coming of the day, when a farmer would be able to carry manure enough in his breeches' pocket to manure an acre of land.

Theories, however boldly advanced, however plausibly attempted to be supported in argument—however beautifully that argument may be written, if contradicted by the experience of the world—if opposed by the practical results of centuries, and repudiated by the common sense of mankind, must, for the want of truth to sustain them, dwindle into hypotheses, and as such cannot stand before the scrutinizing ordeal of reason, the force of enlightened philosophy, and the immutable and unchangeable laws of nature.

THE WESTERN AGRICULTURIST.—We have received the first and second numbers of a new Agricultural Journal, to be published monthly at Columbus, Ohio. Its publishers are Jos. H Riley & Co.—its *Editor W. W. Mather*, Esquire. The work is well printed on good paper, and is well filled. The salutatory address of the editor is written with taste, while his selections give promise that the future will develop an ably conducted and useful work. We welcome its accomplished conductor into the editorial fold, and sincerely hope that its enterprising proprietors may reap a rich reward for their public spirit and earnest efforts to advance the interests of agriculture.

HORTICULTURAL SOCIETY.—The monthly meeting of this society was held on Monday the 10th ult. Dr. Thos. G. Edmondson, President, in the chair. A beautiful display of Plants and Flowers was made, considering the season and that this was the first Show.—It was a delightful treat, and was but a foretaste of the rich source of enjoyment which is in store for the members and their families—As the season advances, the exhibitions will be more general and extensive, and will include vegetables as well as flowers and plants.—

The following rare plants were exhibited:

By John Feast.—Acacia Saligna, a splendid specimen, 8 feet in height, in full bloom—Camelia Chouchiflora, and a new seedling of fine form, cherry color, with light centre, called Mary Troup, Euphorbia Jaquinflora, Calastylus Aurantiacea, Bigonia Feuchiades, Justicia Speciosa, Chinese Primroses, Laurentinius and a new cape bulb like a Gladiolus, four feet high, very fragrant and night smelling.

Also the following cut flowers:—Strelitza Regina, Kenedya, Mariata, Camellia Varigata, Azalia Alba, do. Phœnicia, Cactus Russelliana, Heliotrope Noltarianum, Antintilan Venasum, Iris Chinensis, Acacia Blattaria, Lotus Jacobias.

By John Tuomay.—A splendid boquet of flowers.

On motion of Saml. Feast, Sr. the following committees were appointed by the chair to award premiums for Fruit, Flowers, and Vegetables at the annual exhibition, the amount in each department not to exceed $50.

On Fruit.—John Feast, Robert Holliday, James Watt.

Flowers.—Henry Snyder, Saml. Feast, Jr., Jno. Tuomay.

Vegetables.—Wm. Sanders, Saml. Sands, James Pentland.

On motion of Henry Snyder, it was resolved, that, the Horticultural year commence with the annual exhibition in June, 1851.

On motion of Henry Mankin, it was resolved that a premium of a piece of plate, valued at $50, be offered for the best collection of oaks, not less than 25 species, growing and offered for sale or exhibition within five miles of the city of Baltimore, during the fall of 1852—the species to be named by a committee of three appointed by the chair—provided the above amount can be made up without touching the ordinary funds of the society. [We learn that $30 of the required amount is already subscribed.]

The meetings of the society, on motion of Mr. Pentland, were appointed to be held on the third Monday evening of each month.

[We acknowledge the receipt of beautiful boquets from Messrs. Tuomay and J. Feast—these gentlemen will accept our thanks.]

OUR PROSPECTS.—We are receiving such additions to our subscription list, and such tokens of approbation from our old subscribers, as are in a high degree flattering to our pride. Scarcely a letter do we receive, or a visit from any of our subscribers, but sentiments similar to those in the annexed extracts, are expressed in regard to our journal. From the States of Virginia, North and South Carolina, without any extra effort on our part, the increase during the last eighteen months, has been unprecedented—and, although the ground is pretty thoroughly occupied in our own old Maryland, still we continue to receive many additions from home also.

A merchant in Richmond, Va. who has from time to time sent us a number of subscribers, thus writes us in his last letter, remitting the money for several others; and a number of merchants in Virginia, and some in N. Carolina, uniformly make it a practice thus to introduce the merits of the "Farmer" to their farmer customers, for which we tender our sincere thanks:

"I am not a farmer, but a merchant, but I take great interest in farming operations, and I think your paper well calculated to benefit the farming community at large; consequently I shall get you a subscriber whenever it is in my power," &c.

LOUDOUN CO. VA.—A subscriber in this rich county, in forwarding his subscription to the "*Farmer*," remarks:

"You will of course continue to send me the paper, which is to me a welcome and edifying monthly visitor, until the first of July, by which time you may expect to hear from me again. By reading your paper, I have acquired much valuable information relative to farming operations, the management of live stock, &c., and have endeavored to practice upon some of your hints and suggestions, and I think with considerable success. I believe I make twice as much manure as I had been in the habit of making, and apply it to much greater advantage. I have been distributing the Farmer among my neighbors, for the purpose of procuring for it, if I can, some subscribers. I should be much pleased to see it circulating generally among the farmers of my neighborhood, as I am of opinion it would excite and cherish a spirit of improvement. It has, in fact, produced that effect to a limited extent. My near neighbor and friend, who reads it as regularly, or nearly so, as I do, made an experiment with Guano, the last spring, upon oats and corn, with so much success as to induce him to apply three tons, at a cost of $150, to his wheat crop of the present season. The land on which he sowed it, would not, under ordinary circumstances, and without assistance, produce more than 5 or 6 bushels per acre. The wheat at this time is looking very well indeed, and promises to make 15 or 20 bushels per acre. I applied about 600 lbs. of Guano, mixed with 5 bushels* of plaster, to about 3 acres of wheat land, which promises to yield a fair profit. My friend and I intend, if our anticipations should be realized the next harvest, to commence a liberal use of the article."

*Six pecks of plaster was all that was needed.—*Ed. Am. Farmer.*

Another subscriber in the same county in remitting some subscriptions for the Farmer remarks:

"I should be pleased to have a large number of new subscribers for you, but our farmers are doubtful about *book farming*, because they have not tried it. Your journal is benefitting even the Loudon farmers, deserves their support, and eventually *will* and *must* receive it."

A physician in St. Mary's, in remitting his dues, adds:

"I must here add, that I am sorry it has been possible for me to neglect your annual claim so long, when each month's instructive and spirited visiter more than remunerates its expenses a year. I sincerely hope your zealous efforts may be crowned with the amount of patronage which the absorbing interest you advocate, demand."

A subscriber in Fluvanna Co. Va., writing from Richmond, enclosing his subscription, says:

"Feeling that the amount of the subscription is but a poor return for the variety of useful and valuable information found on every page of your interesting journal, I will endeavor, before the commencement of another volume, to forward you a list of new subscribers, being well assured that I can, in no other way, better advance the great interests of agriculture among my neighbors and friends."

The N. C. Baptist Messenger thus compliments the "Farmer":

"It is devoted exclusively to farming interests. It contains essays on all agricultural subjects and the results of experiments made by scientific and practical farmers. Nothing within the range of that most honorable of all employments, the tillage of the soil, fails to be noticed "in due season."—The renovation of worn-out lands, the improvement of different soils, the keeping and application of various manures; the best method of cultivating grains, roots, fruits, &c.; the rearing and improvement of cattle, sheep, horses, &c.; the state of the markets; these and kindred subjects are discussed by "the American Farmer." To the farmer this periodical is worth fifty political papers. It is, in truth, invaluable. It is just the paper that every farmer should have, and which he should teach his children to prize above California gold. Though we have nothing but a garden in which we can gratify our agricultural propensities, yet we devour the pages of "The Farmer," advertisements and all."

Pennsylvania State Agricultural Society.—A convention of the Farmers of Pennsylvania was held on the 21st of January at Harrisburg, for the purpose of forming a State Agricultural Society, which resulted in the adoption of a constitution and election of officers—The honor of being the first President, was conferred on Judge *Watts*, of Carlisle, one of the most enlightened and public spirited farmers of the key-stone State. The other officers were a Vice President for each congressional district of the State, a Corresponding and Recording Secretary, Librarian, Treasurer, Agricultural Chemist, and Geologist, and an Executive Committee of five. A letter to the Editor from an old friend, James Gowen, Esq. of Mount Airy, (who is one of the Vice Presidents, and who has also recently been called to preside over the Philadelphia Agricultural Society) says:—

"I know you will be gratified to learn that Pennsylvania has, though late, entered with Maryland, Ohio, and New York in the great race of Agricultural Improvement, backed by state pride—Not party state pride, but the pride of excelling in the Industrial Arts and the intelligence and prosperity of their citizens.

"A State Society is now organized, and if our Legislature will encourage it but a little, and the spirit that seemed to animate the convention be maintained, the Society must prosper."

A memorial was adopted, calling upon the State Legislature for an act of incorporation, and for pecuniary aid—A call for information as to the necessity of the formation of a State Society was responded to by *A. S. Roberts*, Esq. an influential and active member of the Philadelphia Society, who proceeded to give a few reasons why the society should be formed and an appropriation should be asked from the State to further its objects' He said, "what the farmers of this State wanted was an organization, which will bring them together and lead to an interchange of opinions in relation to improvements in Agriculture. In other States where *individuat* enterprise has been more marked than in our own, the Agricultural interests were more flourishing, and the fact has been attributed to the constant communication kept up between those engaged in the tillage of the soil, and to the influence of one upon another."

Plank Road to West Newton.—The Cumberland Civilian says that the work on this road is rapidly progressing. Every mill along the whole line is in requisition, and plank is being distributed ready to be laid as soon as the road bed is freed from the frost. The Company have two powerful steam engines; one of 10 horse, the other 40 horse power, driving Page's Circular Saw with great effect. The quantity of plank sawed daily by these mills is incredible, and surprises all who have seen them at work.

CROASDALE'S PATENT SEED DRILLS.

Philadelphia, February 5, 1851.

To the Editor of the American Farmer—

Observing the remarks of "A Subscriber" upon Drills, among other articles, I take the liberty of calling the attention of the agricultural community to Croasdale's Patent Seed Drill, the simplest, cheapest, and, as I believe, the most effective machine yet invented. It is constructed *entirely* of iron, adapted to almost *all kinds* of seeds—Wheat, Rye, Oats, Buckwheat and Corn—which it plants in *hills*, at any given distance, (1, 2, 3, 4, or more feet apart) and attachable to any plow. The price brings it within the means of every farmer, being $12.50 each, and warranted. Being attached to a plow, there is no wear upon any part of the machine except the wheel, nor any possibility of an irregular flow of seed, because it is discharged 6 or 8 inches from the ground. With this Drill you can have your seed drilled in any given width you may desire, 4, 5, or 6 inches apart; i. e. 2 drills to the furrow; an 8 inch furrow will give 4 inches, if arranged for 2 drills, or 8 inches, if only one is desired, and so on, according to the width of the furrow your plow makes. In addition to this, it *will sow broadcast*, with all the advantages of drill, perfectly. There are many other advantages that can be suggested, but enough has been said to call attention to this simple machine.

It has been exhibited at 7 Fairs last fall, and received 6 *first premiums;* amongst them, one from the N. Y. State Fair at Albany, where there was the largest competition. It has given universal satisfaction to all who have used it, from whom I have heard, of which numerous certificates can be adduced. The first impression of many farmers is, that its operation will be slow, but any one who cultivates his soil properly, for any drill, will find that his work is finished with this, when he is done plowing, (if he plows more than once,) and that is not the case with any other. Yours, &c.

WM. H. CARR, 5 Commerce-st.

A handbill, more particularly descriptive of the above machine, with drawings, and certificates of various farmers of Pennsylvania, who have used it, may be seen at the office of the *American Farmer*.

FLORAL DEPARTMENT.

Prepared by John Feast, Florist, 279 Lexington st. for the American Farmer.

Every preparation for the coming spring should be got in readiness, both in and out of doors—as pruning, planting, and attending to such things that were not done in the fall; the sooner in the spring it is done the better. Also have manure and compost in readinesss for hot beds, for the receiving of seeds, plants, and such as require to be brought forward earlier than the time for sowing in the open ground. This gives the advantage of an early bloom of flowers, when planted out in the borders, over the ordinary method of sowing seed in the open ground; but for a succession of bloom through the summer and fall months, should be sown in the natural way—in the open borders.

The Green-houses at this time will begin to be more attractive, especially if the collections have been attended to properly—As Camellias, Azaleas, Acacias, Ericas, Laurestinas, Lechenaultias, Chorezemias, Epacris, and many others of a more tender kind, belonging to the stove, as Euphorbias, Begomias, Maranda, Calestylos, Justicias, Jasminums, Gesnerias, Limodorums; besides the bulbous flowering tribe—as Ixias, Babianas, Sparaxis, Lacheualia, Tritonias, Amyrilluses, Hypoxis, and many more too numerous to mention, showing themselves at this time, and should not suffer for water when in bloom. Give plenty of air when the weather is fine, and smoke the houses occasionally, to kill the green fly if they infest the plants any, and it is best to destroy them as soon as perceived.

Pelargoniums will now begin to grow. Keep the plants cool, and give plenty of air; thin out all weak shoots and prune, so as to keep the plants down and in a proper shape; tie the plants well out to cover the pots. They will grow stronger and much better than tied closely together. Repot all such as need larger pots, and occasionally water with liquid manure.

Erithrina Crista-gali or *Coral Tree* will begin to grow, and should be repotted and put in a favorable situation.

Calceolarias.—Repot in the proper sized pots; set them near the glass and be careful in watering, as they are very apt to damp off if not properly treated.

Achemenes, and other roots of a similar character, repot in such pots suitable to start their growth, until such time as they require a general potting, and the proper size for flowering, which will be when grown three or four inches. Keep them in a warm part of the house, which starts their growth much quicker than otherwise.

Camellias will need a plentiful supply of water, now in a growing state. Fertilize the finer kinds for seed, and grafting and inarching may yet be done; and young seedlings that are large enough, pot in proper sized pots, and encourage their growth by a little bottom heat in the house or a hot bed.

Propagation of plants in general may still be done this month, as Ericas, Epacris, Hoveas, and all such,by cuttings.

Tree Peonys may be grafted on the commoner kinds by selecting a suitable tuber, not too large, and then plunged in a little heat. They soon make good plants, and might be put out in the open borders, as they stand the winter.

Azaleas of the finer kinds, may be inarched or grafted on the stronger growing varieties. This makes them more ornamental than on their own roots, as being of a dwarf habit they seldom show to such perfection.

Plants in frames will require plenty of air. Have them clean from all decayed foliage, and tie up such as require support necessary to aid their growth and appearance.

Herbaceous plants may be removed, and the borders spaded a sufficient depth for the reception of such plants, &c. at this time.

Hyacinths, *Tulips*, and all hardy bulbs that were planted, will require attention. If they have been covered with rotted leaves, &c. have all superfluous covering removed, and have the border neatly done up for the flowering season.

Planting of all hardy shrubbery, trees and roots, may be done this month, and if the weather will permit, all planting can be done for what has not been housed through the winter. Next month is preferred for such as have made any growth, for they are more apt to be injured by the cool, cutting winds which destroys the young growth, and more particularly if forwarded much under glass.

Seeds of herbaceous and hardy annual plants, sow in the borders, but it is too soon for such as are tender—these can be put in frames, and then planted out at proper time for flowering.

Box Edging can be planted of those that are rooted, or by slips or cuttings.

Hardy *Evergreens* can be safely removed this month.

Tobacco Culture in Virginia.—We copy for the benefit of our numerous readers in the Tobacco growing districts, the following circular, prepared by an extensive commission house in Richmond, Va. The hints relative to the management of the crop, and the prospective price thereof, will be as suitable for other States as Virginia:—

Richmond, January 28th, 1851.

Our Tobacco market is active, and prices for the last three weeks have been about one dollar higher than they were at the close of the past year. Sales are from $13 to $15 for fair to very good old Tobacco. Fine old brings higher prices. The receipts of new Tobacco are light for the season, and the general quality of the crop is very poor.

Sales of new Lugs are from $5.75 to $6.75 and $7, and better prices for Lugs from very good Tobacco. Common Leaf $7 to $8.50; Middling $9 to $10.50; Fair $11 to $11.50; Good $12 to $13.50; and Fine $14.75 to $15.50. But a very few hogsheads of the latter have been sold.

We incline to the opinion that prices will rule through the season quite as high as they are at this time, unless the crop should be forced into market early and in bad order, and in that event we would expect a decline from the present rates. We look for higher prices for fine Tobacco the latter part of the spring and summer than the prices quoted above. We think the inspections will reach 30,000 hogsheads, though the opinion of many (whose sources of information may be greater than our own) is that the crop will fall several thousand hogsheads short of our estimate. Great confidence is felt in the maintenance of the present high prices in England during the year, and the state of the market in this country warrants the belief that there will be a healthy demand at fully present prices throughout the season.

While we would not advise you to hurry your crop to market, yet on the other hand, we would

not advise you to hold it back for higher prices.—We would urge the importance of your prizing in order that is entirely safe, the whole of your crop, Lugs as well as Leaf.

Large heavy dark Tobacco will best suit for stemming, in order that is a little pliant, and about 1300 lbs. net, but all other kinds we think it best for your interest to put up in safe, dry order, 1250 to 1350 lbs. net.

We believe that your interest would be promoted by making your lots rich. This may, to some extent lessen the number of hills you might otherwise cultivate, but it would insure more weight in the crop, and certainly command more money, by bringing higher prices. Virginia and North Carolina Tobacco at this time is preferred to Western Tobacco in the leading European markets, and to maintain this, we think your interest would be enhanced permanently by improving your lots to the extent that (with good seasons) will insure your making good and fine Tobacco.

We suppose a very full crop will be aimed at this year. We believe a full crop of good and fine Tobacco would not operate injuriously to our Tobacco growers, for the reason that it would, in a great degree, command orders from the leading foreign markets, while a short crop might induce the orders to be sent to the West, which might lead to the substitution of Western Tobacco permanently, where our Tobacco is now used.

The effect of a large crop of inferior Tobacco this year would, in our judgment, work injury to your interest. A large portion of it would most likely be shipped abroad, which would have the effect of swelling the stocks on hand, while its poor quality would render it less desirable than Western Tobacco, thereby causing but little of it to be consumed, and showing heavy stocks on hand the following year.

TO PRESERVE FIGS THROUGH WINTER.

Dear Sir—In the hope that others as remote from the Atlantic coast as is our mountain region, may be enabled to propagate as successfully, and enjoy as much as we do, that most delicious of all fruits, "*The Fig*," my better half has just handed me the enclosed communication, with the request that I would forward it to you for publication in the American Farmer. J. J. A.

Liberty Mills, Va., Feb. 11.

To the Editor of the American Farmer—

Dear Sir.—Will you permit me, through the columns of your paper, to give my experience for a term of years, to answer the question asked by one of your correspondents,—"How are figs to be preserved through the winter?"

As soon as the frost has caused the leaves to fall, I have the bushes drawn together by oak splits, into as small a compass as possible—then a rope of straw is wound closely about each bush from bottom to top—then a layer of *blade fodder* is built up around it to the top, and secured by oak splits, and as an outside covering, a quantity of *top fodder* is piled and secured in the same manner, thus forming the whole into a cone-shaped stock. This covering is generally three or more feet in thickness, and is not disturbed until the last of April. When opened, the bush is full of young figs which make the first crop; and after these have ripened, there is a second and more abundant crop.

With regard to the different varieties, I will say that I have had only two. The first I have cultivated for twelve years; it has a very delicate leaf, and has been treated as described, but has never yet produced even a single fig, so that last fall I had all of this variety dug up as cumberers of the ground. The second variety has a large and rather coarse leaf, and is an abundant bearer of delicious fruit,—and what is very remarkable, in this variety is, that a small root bears figs the first year it is planted out; which, however, do not come to maturity, but the following fall, ripe, delicious figs, can be gathered from it. The mice injured mine slightly the first year, when *corn-stalks* were used, (probably because corn was left in them,) but have never done so since *top fodder* has been substituted. I have preserved such delicate plants as the Crape Myrtle and the Flowering Pomegranate in the same way.

Ficus.

[We thank our fair correspondent, and hope the example thus set, will be followed by others of her sex in giving such information through our columns as may be deemed useful and instructive.—*Ed American Farmer.*]

An Appeal to W. B. B.—*by a young Farmer.*

To the Editor of the American Farmer:—

A copy of the "Farmer" came to hand a few days ago, (the first I ever saw) and glad was I to get it. I find among other *nice* articles, a communication from the pen of E. Ruffin Esq., who recommended to me your paper, and anything from so high a source, in the *land* of *marl*, is "law and gospel." I hope I shall find him a regular contributor. In an article on Rye Straw, written by W. B. B., he says:—

"I have a horse power mill for this purpose, and a simple *contrivance*, driven by water, in my barn yard, which did not cost me $5, which yields me 2 or 3 bushels of meal in 24 hours, &c." This *contrivance* I should like much to have an explanation of, a figure representation, or something that would give me an idea of the machine. Could you devise any method for me to get one, or have it built? Probably Mr. W. B. B. would explain it. By complying with the above, Mr. Editor, you will bestow a favour on a young Farmer.—When anything new occurs in this part of the "old North State," it shall be made known to you. With a sincere wish for the broad circulation of the "Farmer," I subscribe myself, Yours respectfully,

J. J. Nicholson.

[We have received a similar call to the above from Virginia, and hope Mr. B. will respond to them.—Ed.]

A New Firm.—It will be seen by their advertisement, that Mr. *E. Whitman*, Jr. has united with him in the manufacture and sale of Agricultural Implements, Machinery, Seeds, &c. Mr. *E. W. Robinson*, an eminent master builder of this city, who is, we learn, to have the immediate superintendance of the extensive manufacturing department of the house—Mr. Robinson has a high reputation among the mechanics of Baltimore, and we hope the connexion he has thus formed will be mutually advantageous to himself, his colleague and the public.

A Valuable Farm for sale.—Those wanting a valuable Farm, in that rich and highly improving section of our State, are referred to the advertisement of Martin Goldsborough, Esq., on our advertising pages.

World's Exhibition at London.

Committee on behalf of the *Maryland State Agricultural Society*, to attend the World's Fair:

JOHN GLENN, Chairman, Baltimore City.
GEORGE W. HUGHES, Anne Arundel Co.
CHARLES CARROLL, of Daughoregan Manor, Howard Dis.
RAMSAY McHENRY, Harford Co.
ANTHONY KIMMEL, Frederick Co.
JAMES T. EARLE, Queen Anne's Co.
EDWARD LLOYD, JR., Talbot Co.,
JOHN H. DONE, Somerset Co.

REVIEW OF THE TOBACCO & GRAIN MARKETS.

Reported for the American Farmer by J. W. & E. Reynolds.

We have to report sales on the first of Feb. of about 1200 hhds. Md. Tobacco—sold at prices from $6.50 to $8. Since which time there has been nothing doing in the market. The small stock on hand is held very high. We quote common dark crop and second at $6 a 6.50; good crop $7 a 7.50; fine $8 a 10, as per quality.

Corn has declined several cents within the past week. We quote sales at 58 a 61c.

Wheat—Red 90c a $1; white 95c a $1.05, and family flour wheat $1.08 a 1.12.

Oats 40 a 45c. Rye 65 a 70c.

Flour, Howard st. $4.43, City Mills $4.50; Cloverseed. $5 a 5.25; Flaxseed, $1.50; Rye Flour, $3.50; Orchard Grass Seed, $2; Plaster, per ton, $3 a 3.25; ground, $1.12 per bbl.; Rice, $3.50; Sugar, N. O. $5.30 a 6.25, as in quality—receipts large; Molasses, N. O. 31c; Cuba, 20½ a 21; Wool, tub washed, 34 a 35, pulled, 30 a 33 1-3, unwashed, 24 a 25½, fleece, 36c; Whiskey, Pa. bbls. 25½ a 26, hhds. 24½ a 25, and Balt. bbls. 26c; Bone Dust, 50 a 55c per bush.; Lime, Balt. Co. 6c; Salt, from packing establishments, 15c.—Cattle, beef, 800 head offered last market day, 520 of which sold to butchers, 60 left over, and 220 driven to Philad.—prices $3 to 3.75 on the hoof, equal to $6 a 7.25 net, averaging $4.25 gross—Hogs, live, $6.

TO FARMERS.

"CHAPPELL'S FERTILIZER,"
OR AGRICULTURAL SALTS,

APPLIED as a top-dressing on WHEAT or RYE, at the rate of one barrel to the acre, (as soon as the frost is out of the ground,) will increase the yield of Grain more than the cost, besides securing a large additional yield of clover. If HARROWED IN, it will be of advantage, and improve the crop. Experience has also proved the Salts to be a valuable dressing for Clover and Meadow fields. TRY IT.

CORN.—Those who wish to use the Salts on their Corn crop, "broadcast," should apply it soon after ploughing, thus securing its solution before planting—used in the *hill*, it has succeeded better than guano, and pays well.

POTATOES AND GARDEN VEGETABLES.—Very many experiments have fully confirmed the use of our Salts, as the cheapest Manure that can be used. Potatoes are much increased in size and quality.

Two barrels of our "AGRICULTURAL SALTS" applied to an acre of POOR LAND, will be found fully equal to a heavy dressing of Stable Manure. Many farmers prefer it to Guano, or any other manure, as being cheaper and more permanent.

We do not consider it necessary to re-publish our letters of recommendation, as they have appeared before in the Farmer. They can be had in pamphlet form at our office. In the April number we expect to present some NEW CERTIFICATES, showing the result of experiments last year.

Notwithstanding all opposition, and *many false* representations, and some unsuccessful experiments, we have still a *large demand* for the "Fertilizer," particularly from those who have used it before. On *some lands*, certainly, the Salts do act with surprising promptness and success. In fact, the constituents out of which it is prepared, cannot be applied to *any soil* suitable for cultivation without *some advantage*, and though in some cases, (owing to the peculiarity of the soil or the season) the *entire* cost of outlay may not be refunded the *first crop*, the improvement to the soil will eventually pay the farmer well for its use. Nor should any farmer be satisfied with *one* trial; circumstances may occur in certain seasons, which may prevent its favorable action, which the peculiarities of another season might, on the same land, cause the experiment to be very successful. Many farmers failed in the use of Guano, in their first experiments, and it has required *years* to *establish* confidence in the article. We cannot expect our Salts to be used every season with the same success, as much depends on the weather. We would, therefore, recommend those who may have used the Salts without deriving as much benefit as they had expected, to *try it once more on a small scale*. More than probable, their *second* experiment will prove it to be a valuable manure for their land, and a profitable outlay of money. One season, a farmer may use Guano with *great* success—the next, he may be disappointed. Does he attribute the failure to the Guano? No, no. But if the same result from the use of our Fertilizer, we are accused of *adulterating it*, of "fraud," of humbug, &c. A consciousness of our integrity has sustained us under all opposition, feeling satisfied that time only is necessary to prove its value.

All we ask for the "Fertilizer" is A FAIR TRIAL, under circumstances favorable to its action. We GUARANTEE our Salts to contain, at least, 50 per cent more "phosphates, and other soluble salts," than any now offered for sale. We were the first to introduce the article. Farmers will therefore be particular to have none but "CHAPPELL'S FERTILIZER."

P. S. CHAPPELL, Chemist, 158 Lombard st.
Price $3 per barrel of 300 lbs. mar 1

GUANO! GUANO!!

THE subscribers offer for sale, in lots to suit, FOUR HUNDRED TONS *PERUVIAN GUANO*, of the cargoes of barque E. H. Chapin and ships Albany and Angelique. This Guano is all of the present season's importation and inspection, warranted pure, and is handsomely put up in white cotton bags.

PATAGONIAN GUANO, very dry, imported in barques Corvo and Mary Franceska, just inspected.

They warrant the purity of all Guano passing through their hands, and as their prices are uniform, and every attention is given to its proper shipment, farmers can do as well by ordering, as though they purchased in person.

KETTLEWELL'S AGRICULTURAL RENOVATOR.
Prime TIMOTHY and CLOVER SEED.
GROUND PLASTER, &c. W. WHITELOCK & CO.
mar 1-2t corner of Gay and High streets.

To Farmers and Planters.

GUANO—GUANO—GUANO.—We are now receiving our supply of Guano, per ships Greyhound and Brooklyn, just arrived direct from Peru. This Guano is free weighed and inspected, and warranted pure and free from stone and other impurities.

We offer it in *any* quantities at as low prices, (greatly reduced from those of last season) and on as favorable terms as can be obtained in the city.—A liberal allowance made to clubs and parties buying to sell again.

P. MALCOM & CO.
Grain, Flour and Guano Warehouses,
Corner of Bowly's wharf and Wood st., Baltimore.

P. S. We have also constantly on hand Ground Plaster in bbls., Bone Dust and Lime.
Baltimore, 1851. mar 1

GUANO! GUANO!!

1200 TONS PERUVIAN GUANO, landing from ships Edward Everett and Medford.

500 tons Patagonian, part equal to any ever imported into the United States. Also, 1000 bbls. Baltimore city ground Plaster. For sale on the best terms, by

S. FENBY & BRO.,
Mar. 1. Corner of Gay and Pratt sts. Baltimore.

GUANO! GUANO!!

300 TONS PERUVIAN GUANO, of the latest importations, a part of the Brooklyn's cargo, in good cotton bags. Also, Patagonian Guano, of good quality. For sale in lots to suit purchasers at the lowest market rate.

Clover, Timothy, Orchard and Herds Grass SEED, of superior quality, kept constantly on hand and for sale by

T. W. LEVERING & SON,
mar 1-3t No. 113 Pratt street wharf.

GUANO! GUANO!!

400 TONS PERUVIAN GUANO, late importation. Also, Patagonia Guano and Bone Dust—Building and Agricultural Lime. For sale in quantities to suit purchasers by WILLIAM ROBINSON,
Mar. 1. No. 4 Hollingsworth st., near Pratt st. Wharf.

GUANO

SIX HUNDRED TONS of best quality Peruvian Guano just received and for sale, in lots to suit purchasers, at the New York Agricultural Warehouse and Seed Store of

A. B. ALLEN & CO.
Mar. 1 2t 189 and 191 Water st. New York.

THE BEST and MOST VALUABLE Agricultural Implements and Machinery exhibited at the State Fair in 1850, will be seen by the award of Premiums below :

AWARDED TO E. WHITMAN, JR.

No. 55 Light street, Baltimore,

BY THE

MARYLAND STATE AGRICULTURAL SOC'Y,

At their Third Annual Fair, held in Baltimore, 23d, 24th and 25th October, 1850.

For the best Plow in the Plowing Match,		$10 00
For the best Plowing, with Ox Team, Special Premium,		2 00
For the best Plow on Exhibition, 1st Prem.		8 00
For the best Railway Horse Power, Whitman's Improved, 1st Premium,		15 00
For the best Hay Press, 1st Premium,		25 00
For the best Corn Sheller, the 1st Premium,		5 00
For the best Field Rollers, 1st Premium,		8 00
For the best Corn Stalk Cutters and Grinders, 1st Premium,		5 00
For the best Churns,	1st Premium,	4 00
For the best Hay and Manure Forks,	do	2 00
For the best Hay Rakes,	do	2 00
For the best Cultivator,	do	4 00

Also, for the best Wheat Fan, the Society's Highest Honors, a Certificate of pre-eminence over all others.

No exhibitor of Agricultural Implements at the above named Fair, having received one-half the amount of Premiums awarded us on the different kinds of Implements and Machines, it is conclusive evidence that ours was considered the BEST AND MOST VALUABLE on exhibition.

At the great FAIR OF THE MARYLAND INSTITUTE for the Promotion of the Mechanic Arts, held in Baltimore in October and November, 1850, the FIRST PREMIUM, *a heavy Silver Medal*, WAS AWARDED TO

EZRA WHITMAN, JR.

FOR THE LARGEST AND BEST DISPLAY OF AGRICULTURAL IMPLEMENTS.

Also, FIRST PREMIUM, (another *Silver Medal*,) for his Improved Wrought Iron Railway Horse Power, which was made for Exhibition at the WORLD'S FAIR, in London, May, 1851.

Our stock this season will be the LARGEST ever offered in this city, and probably the largest in the World, all of which will be sold on reasonable terms at Wholesale or Retail.

E. WHITMAN, JR. & CO.

mar 1 At the Old Stand, No. 55 Light st., Baltimore, Md.

GARDEN SEEDS,

FRESH and genuine, raised by the best seedmen in America and Europe expressly for E. WHITMAN, JR. & CO. and sold Wholesale and Retail at their warehouse, 55 Light street, Baltimore. The above Seeds are put up for Retailing in the neatest manner, in packages, at 6¼ cents each. Merchants can be supplied on the most favorable terms with Boxes from $5 to $50 each. Market Gardeners are particularly invited to examine our stock of Seed, which have been selected with great care, and are recommended the very best quality that can be procured. mar 1

BAMBOROUGH WHEAT FAN.

WE have purchased the exclusive right for the sale of this celebrated Wheat Fan in the State of Maryland, and also the privilege from Mr. Bamborough of selling the Fans in all of the Southern States. Farmers and merchants intending to purchase the above Fan, will oblige by sending their orders as early as possible to

E. WHITMAN, JR. & CO.

P. S. Having purchased the patent, as above described, any infringement on the same, either by the manufacturing, sale or otherwise, will be visited by the severest penalty of the law.

E. WHITMAN, JR. & CO.
55, corner of Light and Pratt streets.

Baltimore, Feb. 25, 1851. mar 1

1000 Ploughs and Cultivators.

OUR warehouse will contain this season the largest stock of Plows and Cultivators ever offered in any warehouse of the kind in the world.

All can be suited with these articles by calling on

E. WHITMAN, JR. & CO.

mar 1 55, corner of Light and Pratt st., Baltimore.

PUBLIC SALE OF VALUABLE LAND.

HAVING moved from Maryland, I will offer on TUESDAY, 13th of May, 1851, my farm called "Boston," containing 320 Acres, more or less, lying and being in Talbot county, on the Choptank river, at the mouth of Dividing creek. This farm has a large brick Dwelling house with 11 rooms,—a Kitchen, Milk and Poultry house, all convenient to the dwelling. Barns, stables, Corn house, Carriage house and Cattle shed. A small choice Apple and Peach orchard; a garden containing the usual herbs and shrubbery, with fine drinking water convenient to the dwelling.—The farm can be advantageously divided in three parts, each having a good location for a dwelling, with water views and ample Woods. This farm has produced as fine crops as most Maryland lands; will throw up the richest grass, has superabundance of calcareous and other manures, has the Locust, Sassafras, Wild Cherry, and Slippery Elm trees, growing in groves along the creek shores. Those who desire to locate themselves on the salt water, in a pleasant and healthy neighborhood, abounding in oysters, fish, terrapins, and crabs, with wild fowl and other game in their season, and accessible to Baltimore at least three times a week, per steamboat passing in sight and landing passengers within 1 to 1½ miles of the door, may not again have as favorable an opportunity to fix themselves on the salt water.

The terms of sale are one half cash, and the balance in 6, 12 and 18 months credit, with approved security, bearing interest from the day of sale.

N. B.—For any particulars, address the subscriber, post paid, or James L. Martin, Esq., Easton. Thomas O. Martin who resides on the farm, will show the premises.

MARTIN GOLDSBOROUGH,
Tallahassee, Florida, Feb. 11, 1851. Mar. 1.

A JACK WANTED.—Any one having a first rate JACK for sale, may hear of a purchaser by addressing (post paid) the editor of the American Farmer. Mar 1-1t.

A TOBACCO PLANTER WANTED—A single man, or one with a small family, who is well acquainted with raising Tobacco and putting it in condition for market, will hear of a good situation, and the most liberal terms, by application (if by letter, post paid) to the editor of the American Farmer. mar 1-1t

LIME.

THE subscribers are prepared to furnish Building and Agricultural Lime at the depot on the Back Basin, corner of Eden and Lancaster-sts., which they will warrant to give satisfaction, it being burnt from pure Alum Lime Stone, equal to any found in the United States. Orders may be left with WILLIAM ROBINSON, No. 15 Hollingsworth-street, near Pratt.

ft **PELL & ROBINSON**, City Block

1000 Men Wanted to Circulate the following

USEFUL BOOKS FOR FARMERS

And all who are interested in Agriculture, Horticulture, &c. &c.

C. M. SAXTON,

AGRICULTURAL BOOK PUBLISHER,

123 *Fulton st. (up stairs) New York,*

TAKES pleasure in announcing to the Farmers, Gardeners and Horticulturists of the United States, that he has added a large number of Books to his list of Publications, and is prepared to offer *great inducements to Travelling Agents*, and here let it be distinctly understood that, as we do business on the CASH PLAN, it will be necessary for persons who apply for an agency to have a capital of from $25 to $100, to start with,—and with such an assortment, adapted to the actual wants of the "People" no person with the right kind of energy can fail to make good wages. In fact it is a RARE CHANCE for Agents to MAKE MONEY. Address (post paid)

C. M. SAXTON, Agricultural Book Publisher,
No. 123, Fulton street, (up stairs) New York.

American Farm Book; or, Compend of American Agriculture. Containing a concise and plainly written Exposition of Duties pertaining to the Cultivation of the Earth, the Management of the Farm, &c., &c., on practical scientific principles. By R. L. ALLEN. Price, in cloth, $1; mail ed., paper cover, 75 cents.

Treatise on Domestic Animals (Illustrated,) Being a history and description of the Horse, Mule, Cattle, Sheep, Swine, Poultry, and Farm Dogs, with Directions for their Management, Breeding, Crossing, Rearing, Feeding; also, Directions for the Management of the Dairy. By R. L. ALLEN. Price, cloth, 75 cts.; mail ed., paper cover, 50 cents.

American Poultry-Yard. Comprising the Origin, History, and Description of the Different breeds of Domestic Poultry, with Directions for their Breeding, Crossing, Rearing, Fattening, &c. By D. J. BROWNE and SAMUEL ALLEN. Illustrated by numerous Engravings. Price, cloth, $1; mail ed., paper, 75 cts.

American Bird-Fancier; considered with reference to the Breeding, Rearing, Feeding, Management, and Peculiarities of Cage and House Birds. By D. J. BROWNE. Illustated with Engravings. Price, cloth gilt, 50 cts.; cheap ed., paper, 25 cts.

Bees, Pigeons, Rabbits, ana the Canary Bird, familarly described; their Habits, &c. By PETER BOSWELL. 1 vol. 12mo. *In Press.*

Southern Agriculture: being Prize Essays on the Cultivation of Corn, Hemp, Tobacco, Wheat, &c. and the best mode of Renovating the Soil. By ADAM BEATTY. Price, cloth, $1; paper, 75 cts.

Sheep: their *Breeds, Management, Structure and Diseases*; with Illustrations, and an Appendix of valuable Tables, &c. By HENRY L. CANFIELD. Price, cloth, $1; paper, 75 cts.

Complete Farmer, and *Rural Economist*. By Thomas G. Fessenden.

American Gardener. Containing Practical Directions on the Culture of Fruits and Vegetables, Landscape and Ornamental Gardening, &c., &c. By Thomas G. Fessenden. The two works bound together, making about 700 pages, mail ed., $1.

Treatise on the Grape Vine, with Illustrations. By I. F. Allen. Price, cloth, $1.12½ cts.; paper, $1.

Prize Essays on Manures, submitted to the Trustees of the Massachussetts Society for Promoting Agriculture. By S. L. Dana. Price, 25 cts.

Treatise on the Cultivation of the Grape Vine on Open Walls, with a descriptive account of an Improved Method of Planting and Managing the Roots of Grape Vines. By Clement Hoare. To which is added an Appendix, containing Remarks on the Culture of the Grape Vine in the United States. Price, cloth, 50 cts.; paper, 37 cts.

Elements of Agricultural Chemistry and Geology. By James F. W. Johnston. Price, cloth, 50 cts.; paper, 40 cts.

Lectures on the Applications of Chemistry and Geology to Agriculture. By James F. W. Johnston. New edition, with an Appendix, containing Suggestions for Experiments in Practical Agriculture. Price, cloth, $1.25 cts.: paper cover, for mail, $1.

Lectures on the General Relations which Science bears to Practical Agriculture, delivered before the New York State Agricultural Society. By James F. W. Johnston. With Notes by an American Farmer. Price, cloth, 75 cts.; mail ed., paper, 50 cts.

Family Kitchen Gardener. Containing plain and accurate Descriptions of all the Different Species and Varieties of Culinary Vegetables, with the Best Mode of Cultivating them in the Garden, or under Glass, &c.; with twenty-five Engravings. By Robert Buist. Price, cloth, 75 cts., paper, 50 cts.

American Bee-Keeper's Manual. Being a Practical Treatise on the History and Domestic Economy of the Honey-Bee. By T. B. Miner. Price, cloth, $1; paper, 75 cts.

Sheep Husbandry. Comprising a Treatise on the Acclimation of Sheep in the Southern States; also, a Complete Manual of Breeding, Summer and Winter Management, and of the treatment of Diseases, with seventy-five Illustrations. By Henry S. Randall. Price, cloth, $1.25 cts.; paper cover, for mail $1.

Book of the Farm. Detailing the labors of the Farmer, Steward, Plowman, Hedger, Cattle Man, Shepherd, Field Worker, and Dairy Maid. With numerous Engravings. By Henry Stephens. To which are added Explanatory Notes, Remurks, &c. By John S. Skinner, Esq. Forming two volumes octavo, of over one thousand pages. Price, $4.

Chemistry Made Easy for Farmers. By J. Topham. Price, 25 cts.

American Fruit Culturist. Containing Directions for the Propagation and Culture of Fruit Trees, in the Nursery, Orchard, and Garden, with descriptions of the principal American and Foreign varieties. Illustrated with three hundred accurate Figures. By J. A. Thomas. Price, cloth, $1; paper, 75 cts.

The American Architect. The cheapest Architectural work ever published in the United States. Carpenters and others designing to build would find this publication to be a valuable aid. Country builders, especially, would derive substantial assistance from the Details and fully-patronized Specifications. It consists of Original Designs of Country Dwellings. Each number contains a Perspective View, two Elevations, two Plans, a Plate of Details, and fully-described Carpenter's and Mason's Specification. Now complete, in 24 Numbers, at 25 cts. each, or $5 for the 24 Numbers, $6 bound in 2 vols.

Domestic Medicine; or, Poor Man's Friend in the Hours of Affliction, Pain, and Sickness. By J. C. Gunn. It contains 900 pages octavo, at the low price of $3. Mar 1-2t.

New and Valuable Plants for the Nursery, Garden and Pleasure Grounds.

B. M. WATSON, Old Colony Nurseries, Plymouth, Mass., offers for sale a very complete assortment of PLANTS, including all those of recent introduction, consisting, in part, of Pear, Quince, Paradise, Mahaleb, Plum, Cherry and Apple stocks at lowest rates.

Young Trees, 3 to 5 feet high, mostly at from $5 to $12 per 100 of the finest deciduous sorts for nurseries or young plantations, and Evergreens, from seed, from 1 to 1½ feet.

Dwarf Pear, Apple, Cherry, Apricot and Nectarine Trees, in a bearing state, or nearly so, of the very finest sorts, at the usual rates.

Standard Trees of the same.

Strawberries, in 20 fine varieties, mostly at $1 per 100; Boston Pine, $1; Iowa, $2; Burr's New Pine, $2; Jenney's Seedling, $1.50; Richardson's Seedlings, 50 cts. per doz, very fine.

Ornamental Trees and Shrubs in great variety, including many new species, finely grown. Evergreen Trees and Shrubs and rare Pines in great variety.

Calestegia Pubescens.—This new Hardy Climber, lately introduced from China by Mr. Fortune, proves perfectly hardy in New England, having stood two winters in the ground here without any protection whatever. It is covered with delicate double rose colored blossoms all summer, and is the most brilliant and attractive flower of recent introduction. Plants $1 per pair—Tubers for 100 plants $5—for 50, $3, which will be sent by mail or express, at any time.

For bedding out, Verbenas, including Reine du Jour, Robinson's Defiance, Iphigenie, St. Margaret, and 20 others, $1.50 per dozen. Fuschias, Carnations, Scarlet Geraniums, Heliotropes, Chrysanthemums, Runners, &c. in great variety.

Priced List sent (post paid) on application. Carriage of all packages paid to Boston.

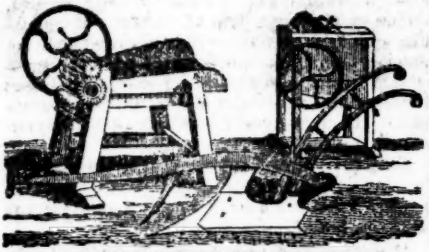
Plymouth, Mass. Feb. 14, 1851.

Orders for any of the above, received by the Editor of the American Farmer. Mar. 1.

Farmers and Planters' Agency.

FROM the suggestions of a Patuxent Planter, the undersigned has been induced to undertake the sale of all kinds of PRODUCE raised by the farmer, believing it to be the best plan that could be devised for the farming interest, and having an experience of several years in that kind of business, he flatters himself to be able to give general satisfaction, if prompt attention to business, good sales and quick returns can do it. For further information, he would refer to Jas. Patterson & Co., Calvert street; E. Whitman, Jr. Light street; Godwin & Seth, Bowly's wharf.

WM. L. BATEMAN,
mar. 1-1t* No. 93 Fayette, corner of Sharp street,



SELLING OFF TO CLOSE!

A STOCK OF

AGRICULTURAL IMPLEMENTS

Amounting to $10,000.

TO BE SOLD AT GREAT SACRIFICE.

THE undersigned having determined to change their entire business, would call the attention of Farmers, Gardeners and Dealers, to their extensive stock of Agricultural Implements, which they will dispose of on the most reasonable terms for cash, with a desire of a speedy close.

The Implements consist, in part, of Horse Powers and Thrashers; Wheat Fans, a superior article—took the First Premium at the late annual Fair; Straw Cutters, various kinds and sizes, consisting of Cylindrical Box, which is too well known for us to speak further—the Raw Hide Repeating, or the Boston Box, suitable for cutting straw or hay; Corn Shellers of all kinds; Ploughs of every kind, suited for the different varieties of soil. Our stock of the latter is very large, numbering upwards of 600, which we will close out at much reduced rates. Also, Churns of an endless variety, with Shovels, Forks, Cradles, Briar Hooks, Apple Pearers, Sausage Cutters and Fillers, together with a general assortment of articles suited for the farmer. Home Seeds from the Shakers' Gardens, N. York, celebrated for their freshness, &c.

We will also dispose of an elegant STEAM ENGINE, Turning Lathes, Circular Saws, Drilling Machines—together with an elegant Brick Shop, making everything complete for manufacturing purposes. The agricultural community will please give us a call before purchasing elsewhere.

No. 97 NORTH PACA ST., near Franklin.

For the accommodation of those having water communication with the city, we will have an office on BALDERSTON STREET, near Light, where we will be happy to receive all orders, and promise to give punctual attention.

mar 1 HAMBLETON & DIDIER.

AGRICULTURAL IMPLEMENT DEPOT

And Produce Store,

No. 95 LIGHT STREET WHARF,

And in front of the small wharf where the Hugh Jenkins, Cambridge and other steamboats start from daily.

TO facilitate and render this business more convenient for his customers and himself, the subscriber has taken a convenient and commodious Warehouse in Baltimore, as a depot and sale place for all the various Agricultural Implements manufactured at his shops in Carroll County; also, to sell the products of his Farms, Mill and Foundry.

The following articles of his own manufacture and produce, he will endeavor constantly to have there for sale, viz:

HORSE POWERS { Endless Chain or Tread, for 1, 2 or 3 horses. Levers for 2, 4 or 6 horses.

THRESHERS { With Seperator and Fan attached. With Seperator only. Without Seperator.

Wheat Fans, Corn and Cob Crushers, Corn Shellers of various kinds, (very superior;) Cutters for Hay, Straw and Fodder, (Richardson's patent;) Cornstalk Cutter and Grinder, (a new and the best article now in use;) Horse Rakes; Smut and Garlic Rubbers, (which is unequalled for its simplicity of structure and thorough operation on Wheat or Buckwheat;) Clover Seed Hullers; Ploughs of several kinds, but only such as are known to do the best work; Harrows and Cultivators, and various smaller Implements for Garden and Field use. Castings for Blacksmiths—Firebacks, Tyre Benders, Blocks to make different forms by; Corn and Cob Crusher Castings for Mills; Saw Mill Castings; Cooking Stoves (new and different from any in this market.) Best Family, Extra and Com. Superfine Wheat Flour; Corn and Buckwheat Meal; Corn, Oats, Mill Feed, Seed Grain, Clover and Timothy Seed; Bacon and Lard; Potatoes, Apples, Butter, Eggs and Poultry. In short, everything we have to spare from the farms.

Will be received in a short time a supply of Mumma's patent CONCAVE CYLINDER CORN SHELLERS, either for power or hand. It received at the late Fair in Balt. the first premium over all others. The peculiar structure of the Cylinder, allows it, to take the end grains off the cob cleaner than any other machine, also separating the shelled corn and cobs. I have the entire right for Carroll and Baltimore Counties and city. I will also furnish to right holders, these machines at wholesale, put up in a superior manner, and at fair rates.—I have also the Vertical Cylinder Corn Shellers, (all cast Iron and of great strength) which will shell 100 bushels per hour.

N. B. Address me in Baltimore, or at my residence, New Windsor, Carroll Co., Md.

Jan. 1 JAS. C. ATLEE.

Kettlewell & Davison's Salts against Guano.

A CHALLENGE!!!

The deep interest now taken by Agriculturists in all descriptions of manure, would seem to justify any expedient, by which fair and unprejudiced experiments may be made of the various descriptions of manure at this time attracting the attention of the public. In view of this, and the undersigned honestly believing that the Chemical Compound, manufactured by them, is the best manure of which any knowledge is had for a *Corn Crop;* challenges Guano to the test upon the following conditions:—He will forfeit ONE HUNDRED DOLLARS, to be presented to the Maryland Agricultural Society, if any advocate of Guano will do the same, that the Renovator compounded by Kettlewell & Davison, will produce upon any soil, the largest crop of *weighed corn*, without regard to the size of the stalk, provided the President of the State Agricultural Society will select some person, in his judgment qualified, to superintend the experiment. The nature of the soil to be described, so that each party can direct the mode of application; two barrels of the Salts to be used per acre, costing $6, and 300 lbs. of the Guano, costing $7 20, the party making the experiment to receive the manure free of cost. And the same amount against any manure as a top dressing upon timothy or clover.

JOHN KETTLEWELL.

Kettlewell & Davison again call the attention of Agriculturists to their various Chemical Manures—and in doing so, they would be insensible to common gratitude, if they failed to express their profound acknowledgments for the constant and increasing demand, which flows in upon them for their simple and compound manures. Each season has greatly increased their sales, extending as far south as South Carolina.

They can give no stronger evidence of their faith in the virtues of their manure, as the best known for a *corn crop*, than the tenders they make above; and the certificates which they herewith

present. In the offer of a test, it is not the amount involved, but the willingness to challenge result, that speaks their integrity, and confidence. We could add any amount to the testimony we publish; but if the names we refer to, do not command confidence, no additional number could. We have never boasted of the quality of our article, we have been content to leave a decision to time, demand, and experiment, that has been in our favor—hoping, if we have less of "Bi-phosphates," the public would discover it, as they would if it was found we had more of "sand" than any thing else.

KETTLEWELL & DAVISON.

Office at Ober & McConkey's, corner of Lombard and Hanover Streets. Factory, Federal Hill.

KETTLEWELL & DAVISON'S
AGRICULTURAL DEPOT:

MANUFACTURERS OF EVERY DESCRIPTION OF SIMPLE AND COMPOUND CHEMICAL MANURES:

RENOVATOR OR CHEMICAL SALTS.

Factory, Hamburg Street, Federal Hill.—Office at the Wholesale Drug Store of Ober & McConkey, corner of Lombard and Hanover Streets, Baltimore.

The undersigned, respectfully ask an attentive perusal of the following certificates, in reference to their *Renovator*, or Chemical Agricultural Salts; for if they even fail to enlighten the prejudiced, or satisfy the distrustful, an abundant remuneration will be found for the time consumed in the intelligence, observation, and interest which the question of manure involves, and which is equally shared by the whole agricultural community. From no other source in this State, or out of it, could more reliable testimony be found, based as it is, upon the highest intelligence, practical experience, capacity, and disinterested truthfulness. It is, however, lamentable to know, and to feel, that one unfavorable experiment, does more injury to the introduction of any manure, than ten decidedly favorable experiments does to secure public confidence. In this suspicion and doubtfulness, the Farmer is the greatest sufferer himself; nevertheless it is the history of all manures, and that from the barn-yard would have shared the same capricious judgement, did not its rapid accumulation require removal.

Look at the early history of lime, its struggles to win popular favor, although in point of durability, perhaps, the parent of all other manures. It was not until the more practical faith and judgement of a sister State had fully developed its now unquestioned utility, that many portions of our own became satisfied of its fertilizing properties; and yet it is a well known fact, that whole districts of country have for long periods abandoned its use in regions where it was cheap and accessible, because one or two experiments had failed, owing, no doubt, to the soil requiring a different element, having a sufficient supply of lime, without, it may be, a trace of something also equally necessary to improvement.

Such, too, is the history of Plaster, of Bone Dust, Guano, Ashes, and Marl. Recently, science has shown the far greater advantage of bone dust, (bi-phosphates,) dissolved in sulphuric acid, with a proper proportion of Sulphate of ammonia, and made as fine as ashes; yet we find the popular mind but slowly receiving this demonstrable truth, notwithstanding every experiment triumphantly vindicates its incalculable advantages. In a few years it will be universally admitted.

Such prejudices, however, are fast fading away; but enough remains for us to know, that our enterprize must, if it has not already, passed through the same ordeal.

In durability, we know that our chemical compound is only second to lime; in promptness dividing the palm with Guano. On some soils it has been as active as guano, on others, more or less so; but on any, by far the most lasting. In promptness it has a corresponding advantage over lime. The wisdom, as well as the interest of the farmer, should make a permanent improvement of his land a matter of primary consideration.—And as we entirely concur in the opinion, which all do not, that the natural soil has great influence upon the actions of manures, we volunteer to every farmer this advice:—pronounce no manure a *humbug* sustained by such testimony as we present in support of our salts, but never buy more than a very small quantity until you try its adaptation to your particular soil. Follow this rule, and while no one will be injured, neither will you do injustice either to your neighbor or to the manufacturer. For a manure which, for the first season, may have done but little apparent service to you, may be of no ordinary benefit to your neighbor, of which, by your discontent and example, he may remain in ignorance.

The farmer in calculating the value of manure, does it upon a relative principle. In the purchase of lime, how much, and how long will it benefit his land? In the purchase of guano, how much will he make the first crop? Those who buy our salts should unite both these calculations, and however much he may be gratified by its prompt and immediate action, we will risk our reputation, that he will be far more so, with its durability.—It is prompt, and it is lasting!—hence, in applying two barrels of the Renovator to the acre, instead of one, the agriculturist is only paying for a manure the benefit of which he will acknowledge from his first to his sixth crop! We have been asked why something like our salts was not introduced years ago? We reply, that years ago our lands were not worn down as they are now; and the absolute necessity for investigation and experiment not so imperiously demanded. Independent of which, must the agricultural interest *alone*, and pressed upon every side, stand still? Is every branch of industry to progress—to develope,—and this immense interest—the foundation of all others, have limits? Why, we say, to all who ask this question, that every one who has been using barn-yard manure all his life, has been using many of the elements of our Chemical Salts; *but in a far less powerful and concentrated form.* But others have said, and will read the

certificates annexted, and again say, the quantity of one or two barrels to the acre, is too small: such results are utterly impossible! We ask him to look at the Mammoth Steam Boat with its thousand tons of cargo, propelled by a few hogsheads of water! Those natural laws which guide the one govern the other. They are alike unalterable and immutable. Science often, amidst shouts of scorn, promises results, and experience demonstrates their truth. In conclusion we have no cause of complaint; on the contrary, our success and patronage does infinite honor to the great and intelligent interest from which we asked it.—The farmer has made our manure a standard one, and below that standard it will never go. We have every season sold all we manufactured, and each succeeding season the demand has rapidly increased.

It will be seen that most successful experiments have been made by using 100 lbs. of the *best Peruvian* Guano, and 200 lbs. of our salts—(the cost of both being less than 200 lbs of guano.)

When this is done, it should be strictly borne in mind, that the *guano shou'd be ploughed in*, and the salts as slightly harrowed in as possible. The one rises through the earth—the other sinks. The ammonia in the guano is free or volatile—in the salts, fixed as a sulphate. For the information of those who are not acquainted with the elements of which our Renovator is composed, we make the following extract from our first publication:—

"The soil may contain a supply of all the materials referred to; but frequent cropping may have used up all those in a free state. Now, under these circumstances, we may renovate the land by supplying all those materials which are required for the crop without drawing on the soil, but actually *resting it and keeping it covered*, while undergoing the process of disintegration; all of which, *experience* says is important.

A rotation of crops is not the *best* mode of accomplishing this object; for although all crops do not remove from the soil the same proportion of its elements, yet they are removed, and the land is impoverished. On the other hand, we are taught by experience, that land exposed to the sun's rays is not improved by rest as when "covered." Guano will, in many cases, supply the deficiency of two of the elements necessary for the growth of a crop; but is found frequently to fail, because *those two* elements are not wanted by this particular soil; and the experiment is a hazardous one, for the failure is not only a loss of time and labor, but the manure is an expensive one, and the crop is twice lost. Stable manure, plentifully applied, will generally accomplish the object; but it is not always to be had in sufficient quantity; and many soils are injured by the admixture of so much vegetable matter, while the salts contained by the stable manure would have been beneficial *alone*. But, under the most favorable circumstances, we are prepared to prove that it is cheaper to apply one cart load of salts, containing the extract of one thousand cart loads of stable manure, than haul out the latter, although it cost nothing. We call the attention of the public to the fact that we do not merely stimulate the growth of *one* crop by the application of an agent like guano or plaster; neither do we profess to have discovered some new combination or panacea for curing all the defects of drainage and bad cultivation; but we challenge the severest scrutiny to detect the absence or deficiency of any salts that is required for the usual crops, in the proportions indicated by the best authority; in other words, we propose to put on land exactly what would be taken off by the next crop. Take, for instance, one of the elements of our Renovator, phosphate of lime; eight pounds are removed from the soil in every ton of hay, wheat or straw, and one pound by every one thousand pounds of wheat or oats. Twenty pounds will supply an acre with this material for three crops of wheat, clover, &c.; and one barrel of our Renovator will, consequently, provide more of this material than any six crops can remove from an acre. Moreover, we will engage to forfeit 200 barrels of our salts to any individual who will produce a barrel of the Renovator that contains less than the average in the 100 pounds of guano of phosphates of lime.

A bushel of green dung wheighs 87½ pounds, of this 83½ per cent. is water, and only 2½ is soluble. One hundred pounds of dung contains *nearly* ¼ of a pound of Phosphate of Lime, so that one barrel of our Renovator is equal to about two hundred and fifty bushels of pure dung, with reference to phosphates *alone*.

But if we compare the fixed soluble salts, one barrel of our Renovator, represents more than 400 bushels of dung; for 100 pounds of dung do not contain ½ a pound of salts. If it were possible to burn up the cartload of dung, and collect the 8 lbs of ashes, without losing the ammonia that would be volatalized, it is manifest that much labor would be saved in its application.

Now this we propose to accomplish in the use of the Renovator. All experience shows that the combustion or rotting of the dung, when spread upon the field does not supply even this proportion of salts, for the straw or hay of the dung is frequently preserved for years without decomposition retaining the phosphates, &c., while the ammonia is evaporated and lost to the crop; whereas the ammonia of the Renovator is supplied as a sulphate or fixed salts of ammonia more than 24 lbs. to the barrel. Apart from this, the seeds of noxious weeds are spread broadcast upon the growing crops with every bushel of dung. It is estimated by the analysis of the ashes of the soap-boiler that every barrel of our Renovator contains as much Potash as six bushels of their ashes; and the salts of lime in each barrel contain more pure lime than a bushel of the best quick lime from the Schuylkill. The salts of Magnesia and Soda in each barrel, will amount of 50 pounds, and the sulphate will exceed 75 pounds in each barrel.—Moreover, we pledge ourselves always to supply the proportion as above in every barrel, and will make the forfeit referred to above, to any one who can produce a barrel deficient in any of the articles as represented above."

GROUND PLASTER.

The undersigned ask the special attention of the Agriculturists to the very able Report of the State Chemist for the past year, that they may be thoroughly informed upon the variable qualities of this important article. It is well known that plaster is alone valuable for the quantity of sulphate of lime which it contains; and this valuable document shows that from a number of analyses made by him it varied from 40.100 to 85.100. Now as there is one established price, the farmer who buys the inferior pays more than double the price of the one who gets a good article, and never knows to the contrary. We have only to say that ours shall be similar to what we have already sold—that our name shall be stamped upon every barrel, and that the Agriculturist will get what he pays for. Those who order through agencies should indicate that they want ours, provided such is the case.

BI-PHOSPHATES.

We keep constantly on hand this valuable manure. Bones, with a proper portion of the Sulphate of Ammonia, dissolved in Sulphuric Acid. The Chemists of this country and Europe have been pressing this mode of using bone-dust upon the attention of farmers, with great zeal and ability of recent years. Every experiment has confirmed the truthfulness of their theory; and we hazard but little in saying that in a very brief time it will be used in no other way. It is prepared so as to be sown similar to the salts, at the rate of one or two barrels to the acre. The price of this article is $4 per bbl. Let the farmer who doubts, try it at a less expense than the old mode of using bone-dust.

TOBACCO GENERATOR.

This is a chemical compound, made expressly for the growth of the Tobacco plant. We will call more special attention to it at the proper season.

CHEMICAL RESIDIUMS.

We have constantly on hand Chemical Residiums of every description. Full information of which can be had by application to us.

COMBINATION OF GROUND PLASTER AND POTASH.

This is a preparation made for soil deficient in Potash, of which deficiency there is, unfortunately, too many instances in much of our Maryland land. For this compound we are indebted to the suggestion of an accomplished Agriculturist of Prince George's county, who may at some future day present the result of his experiment. The price of this is $2 50 per barrel.

DIRECTIONS.

The mode of using the Renovator is simple, inexpensive, and requiring but little labor. The farmer must bear in mind, that in the preparation of his soil he shares an equal responsibility in testing the merits of any manure. Land negligently or badly cultivated gives no manure a fair chance. How to put land in order he ought to know better than we can teach him; and if he don't know, should learn as speedily as possible. The land, then, in order—if one barrel to the acre is used—and this quantity depends upon the quality of the land—it should, for grain be sown broad-cast, and slightly harrowed in.

If two barrels are used, one as stated above, and the other as a top-dressing upon the wheat or rye, early in the spring at the commencement of the first thaw. Upon grass it should be sown broad-cast upon the timothy or clover. On corn, either broad-cast or in the hill. Where two barrels are used, one each way.

☞ PRICE OF THE RENOVATOR, $20 PER TON, OR $3 PER BARREL.

☞ In consequence of this advertisement extending to unusual limits, and the necessity of going to press, combined with our anxiety to have *every unfavorable* report published, we are compelled to omit many kind and favorable evidences of the virtue of our salts, that we have received from our friends. To them our gratitude is not less due, and we will, hereafter, present them to the public through the columns of the "American Farmer."

FROM REV. J. S. A.

CUMBERLAND CO., VA., July 31, 1850.

Gentlemen:—Another reason for a short delay in writing was, that I had hoped to be able before this, to thresh the field of wheat on which I put the Renovator, at the rate of a barrel to the acre. But we have had such frequent and heavy rains, that this work could not be done. I always refer to the granary and to the half-bushel, as the only reliable test of the value of a manure for wheat. I believe I said in a former letter, that I had applied to one field of 30 acres, about 200 lbs. of Peruvian Guano per acre, and 30 barrels of the Renovator to another field of the same size, with a view to ascertain the comparative value of these manures, for the crop and the land. At present I can only give results as they appear in the field.

The field to which Guano was applied contained the best land, or a considerably larger portion of land partially improved. The crop, for the year, is a very good one, and ripened generally with little or no injury from rust. Probably an acre and a half or two acres, where the wheat lodged, suffered considerably from rust. I think the field will average 12 or 15 bushels to the acre. The set of clover and timothy is a good one, and the land shows very marked improvement. Without manure, of an ordinary year, I should have calculated on 7 or 8 bushels to the acre: this year, with the injury to the wheat crop from rust, I should not probably have had 5 bushels per acre of sound merchantable wheat; and clover and timothy seed would have been thrown away upon about half the field. The money, then, for the guano was very profitably expended. On 10 to 12 acres of this field I applied ten bushels of oyster-shell lime to the acre, but with no appreciable benefit to the wheat.

On the other field, as I said, I put 30 barrels of your Renovator, a barrel to the acre, without any regard to difference in the fertility of the different portions of the field. There were 10 or 12 acres in this field in good heart; the balance was quite poor—too poor to pay the expense of cultivation

in wheat. On the better portion of the field, the action of the Renovator was most marked and beneficial. The yield will be as heavy, I am sure, as the best of the guanoed field, and the set of clover and timothy as good as I could ask on any such expenditure. This field ripened without rust, and the grain is remarkably fine. On the very poor parts of the field, the crop was light, the straw and the heads short, but the grain good.—The clover really astonishes me; the set is good, and the growth vigorous, on portions of the land on which it would have been idle to hope to grow it. In this respect I consider your manure invaluable. I believe I shall be reimbursed in the crop for the outlay; and in the improvement of the land, I am certain I shall get an interest on it, that ought to satisfy the really avaricious.

I ought, in justice to you, say, that the Renovator, in consequence of delay in getting it on last fall, did not exactly have a fair chance:—I did not put it on till the early part of February. I am confident I should have had greater benefit from it, if it had been put on at the time of seeding the wheat. It does not make straw like guano or stable manure, but I am satisfied that it is better than either to make grain. If I had applied two barrels instead of one to the really poor land, I believe that the profit would have been greater.—As it is, I am satisfied that it pays well at once for the cost on wheat, with a greater prospective benefit to the land.

I tried a few barrels on *very poor* oat-land, at the rate of a barrel to the acre, with very little apparent benefit. The season for oats in this region had been a very bad one; so that I would not condemn it strongly for failure here. Intending to put the land in wheat, I sowed no clover or other grass-seed with the oats. I feel confident that I shall be well paid in the wheat crop.

The conclusion at which I have arrived from a careful observation of the effect of Guano and the Renovator is, that if the two were combined, say at the rate of 100 pounds of Guano and a barrel of the Renovator to the acre, it would probably be a better application for crop and land, than the same amount of money expended in the purchase of either. At any rate, it is my purpose to practice on this suggestion.

I have thus given you a candid statement of my experiments with your manure, which, if you think proper, you can use. I am opposed, on principle, to any thing like *puffing*. The public have been too much imposed upon in this way.

Send also 15 barrels of your ground plaister. The reputation of this article is established firmly here; and I know not how much I shall have to order. I shall want more for myself in the spring.

Vine Cottage, Baltimore Co., Aug. 16, 1850.

MESSRS. KETTLEWELL & DAVISON:—

Gentlemen,—I have just received yours of the 13th inst., asking the results of my experiments with your agricultural salts.

It affords me pleasure to state that they have been entirely successful, as the following account will show:—

Last fall I ploughed two 8 acre fields, turning under a meagre crop of clover. The land was thin, and of the same quality throughout. This spring I applied to one-half of the field (4 acres,) 25 two-horse wagon loads of the stable manure per acre, and cross-ploughed the whole field.—Late in May, I planted corn, using on the part of the field not manured two barrels of salts per acre, one on the hill, one broad-cast. The entire field, (8 acres,) equals in appearance any I have ever seen, and there is not the slightest difference between the manure and salted portions.

On the other field I applied the salts alone, in manner and quantity as above stated, and although the corn was not put in until the middle of June, the prospect of a good crop is flattering. My neighbors think it will turn out at least 8 barrels an acre.

In April last I planted an acre and a half in potatoes, to test the relative value of stable manure, guano and salts. I divided the land (which was in clover,) into three equal parts: to one part I put 20 one-horse cart loads of stable manure, to another part I applied 300 lbs. best Peruvian guano mixed with an equal weight of plaster. I then ploughed, rolled and harrowed the whole piece, and planted in rows three feet apart, using on the rows of that part which was not guanoed or manured, one barrel of salts. The season has been very unfavorable, and the crop of early potatoes in this neighborhood quite scanty, but I find upon examination that the guano has done better than the manure, and the salts better than the guano.

I purchased the salts because I was pressed for time, and knew it could be hauled and applied with greater facility than any other manure, but I had very little faith in its virtue. The year before I bought 20 barrels from Mr. * * * *, which I applied according to directions, on 10 acres of corn, without deriving any benefit therefrom.—Mr. * * * * * attributed the failure to the drouth, and it may be so, for I have known Mr. * * * * * many years and believe him incapable of deception or fraud. Now I am perfectly satisfied that your salts (at a great saving of labor and expense) will produce as good corn and potatoes as any other manure. As to its durability, and its action on other crops, I can say nothing at present, but if my life is spared, I hope in time to give you the result of my experience on these points. Very respectfully, yours, WM. MOSHER.

P. S.—I hauled the stable-manure which I put on my corn ground from Baltimore. It cost me one dollar a load there, and I think the expense of hauling is equal to $2 more.

4 acres 25 loads each, 100 loads at $3,	$300
" 8 bbls. salts, at $3, $24; hauling $2,	26
In favor of the salts,	$274

Elkridge, Aug. 20, 1850.

MESSRS. KETTLEWELL & DAVISON:—

Dear Sirs.—In answer to your inquiries of my experience of your Renovator, I feel glad to state that I have used it, last fall, on my wheat crop.

I ploughed up a piece of poor land—some spots were entirely bare of any vegetable matter at all—broad-cast the salts at the rate of one barrel per acre, harrowed the salts in, and then sowed my wheat and harrowed it in also. I made a fine crop of wheat from one barrel. I am sure if I had used two barrels to the acre I should have made a very heavy crop. Then the middle of the piece of land, sowed in wheat, I left stand without salts. On that land there was no wheat. This spring I used 7 barrels of your most excellent salts on 4 acres of as poor land as can be found any where. I am sure that the land would not have brought one barrel per acre, and now I think it is good for 6 barrels. I ploughed up the land this spring, sowed the salts on, one barrel per acre, then put on a harrow and harrowed the land well. Laid off for corn, dropt the corn first, then put in each hill one table-spoonful of the salts, measured in the spoon and spread over the corn. No one would have expected such a result, who had never used them, for I am sure that I did not think that so small a quantity of any thing on such land could produce such corn. All of my neighbors were astonished when seeing the corn. I cannot speak in too high terms of your salts, and would recommend all persons to try them that have never used them. I will be in, in the course of a week or two after more, for my wheat crop this fall. Yours, respectfully,

SETH W. WARFIELD.

P. S.—I forgot to state, that I used on much better land 10 bushels of bone-dust, and the corn is not near as good as where I used the salts; and also used 1060 pounds of guano on three acres of land, but neither will pay me as well as the salts. I am sure had I not used the salts I should not have raised one bushel of wheat to the acre, or one barrel of corn, and all over that amount I shall give the credit to your salts. S. W. W.

Prince George's Co., Md., Aug. 16th, 1850.

GENTLEMEN:—Your favor of the 13th is before me, and it affords me great pleasure, notwithstanding I am very busy, to reply.

I used your salts upon corn, tobacco and grass, and can assure you that the effect so far as I can judge, is very much more than I expected. The effect upon my grass was so evident, that it attracted the attention of all my neighbors.

But to come to the fair test:—I planted one half of my potatoe crop with your salts, and the other half with the best Peruvian guano; the whole patch was manured alike with barn-yard manure broadcast; and the salts and guano applied in the drill:—the result is, that the salts will produce at least one-third more than the guano.

I am so much engaged at present, that I cannot give sufficient time to write you fully, but will do so soon. Excuse haste.

W. KIRKWOOD,

Near Washington, D. C., Aug. 5th, 1850.

Messrs. Kettlewell & Davison—

GENTLEMEN:—You will observe by your books that I bought 4 bbls. of your Renovator on the 22d of April last, for the purpose of testing its qualities in various small ways, which I have practically done. The crops are now showing its effects decidedly, but none so much as the corn, which was broadcast and *cultivated* in the first dressing. Yours, truly, J. BROOKS.

Washington, Aug. 17th, 1850.

MESSRS. KETTLEWELL & DAVISON—

Gentlemen:—Yours, dated the 13th inst., came to hand on the 15th, and found me in the country, amidst wheat, oats, and straw. Now I feel a deep interest in the success of the Agriculturist, for upon this alone, as the foundation, rest all the prosperity and stability of the Government, and people of this country, and especially of our good old State of Maryland.

In replying to your inquiries in regard to the "good or bad effects of the application of your salts to my crops of this year," I can only state them as far as they have gone towards maturity. I first applied about one barrel per acre upon a poor field of about 7 acres, and sowed it down in oats, about the first week in April, and the result was a good crop; at least 50 per cent. better than they would have been without it, judging from quantity taken off the same land last year.

I applied about the same quantity per acre upon a part of my wheat field, and harrowing it in with the clover seed, where scarcely any appearance of wheat could be seen, as at harvest it was nearly as good as the part of the field guanoed last fall, and the clover is well set: this I attribute to the salts.

I applied about the same quantity to timothy with a very decided improvement in length of stalk and fullness of head.

I planted my corn in a strong loam, using in the first eleven rows a handful of Poudrette in each hill, the same number of rows with a compost of bone and ashes equal parts, and eleven with your salts, putting the same quantity in the hill. They are all growing finely, and bid fair to make a large yield; if there is any difference perceptible now, your salts has it. What the final result may be, gathering the crop will only tell. It is not the tallest corn produces the most ears.

I should have stated that I left one row between each without any application, and the difference is considerable.

I also have applied it to potatoes, alternate rows of guano, poudrette, bone, ashes, and your salts. They all look well: about the best in the neighborhood; the tops are green, thick and strong—which will yield the most, I shall inform you about digging time.

I am pleased with the use of your salts. Respectfully, yours, JOHN M. DONN.

August 17th, 1850.

MESSRS. KETTLEWELL & DAVISON—

Gentlemen:—In reply to your enquiry in reference to the result of my experiment with your Renovator, or Chemical Salts, I take great pleasure in saying that it was highly favorable and satisfactory. I have not yet threshed my grain,

and cannot at present give details, but have seen enough in my own experience to speak of it as a most valuable manure. I conceive myself most amply repaid for my purchase of you, as will be evinced by a further order when the season arrives. I can give you no stronger testimony of my faith in its "renovating" qualities. Respectfully your friend, ISAAC C. ANDERSON.

Harewood, Balt. Co., Md., Aug. 19, 1850.

MESSRS. KETTEWELL & DAVISON—

Gentlemen:—Your note of the 13th inst., requesting me to state the results whether favorable or unfavorable, of my experiment with your "Agricultural Salts," came duly at hand.

The 20 bbls. of salts purchased of you were applied to a 25 acre field for corn—the quality was only medium, having been worked down by a succession of crops. Upon part of this land which was broken up last November, and which consequently needed stirring to make it fine, I had the salts ploughed in with one-horse plows—on the rest of the piece, ploughed this spring with heavy two-horse plows. On the whole of the piece the salts was applied broadcast, at the rate of 400 lbs. to the acre. I entertained no preference for either of these ways over the other, there being no difference in the growth of the corn.

The remainder of the field was heavily covered with manure from the stable, and from the hog and cow pens, and that part of it immediately alongside of where salts were applied, was well dressed with woodpile earth and ashes—the whole plowed in to the depth of 8 inches, and well harrowed. The field thus prepared, the laying off and planting commenced, and was executed in good style, from the 19th to the 25th of May. The result upon the whole field is a uniformly good crop; and I think no man could tell from the growth of the corn, where the salts was applied and where the manure: I apprehend there is no perceptible difference.

I decidedly like your salts, and consider it a cheap manure, and efficacious, considerably beyond remuneration—its application is easy and rapid. It is my intention to try it upon my wheat this fall, and only hope it may act as well upon that as upon my corn crop. Very respectfully, yours, R. H. MERIWEATHER.

EGLINGTON FARM, Aug. 16, 1850.

Messrs. Kettlewell & Davison:

Gentlemen—Your favor of yesterday making inquiries concerning the Agricultural Salts you prepared and sold me this spring, I shall answer concisely and honestly, so far as I have been able to arrive at a satisfactory conclusion. I applied it at the rate of one barrel per acre on one piece of my wheat on the 5th of April, the land hilly, and gravelly, and poor, wheat looking badly. The land had been well manured for corn the year before. From this application there was seen at harvest not any perceptible benefit. The clover, however, looks remarkably fine. It was very poor land, though, as remarked before, had been well manured for corn, which yielded only a 4 barrel to the acre crop on that piece of ground The next day after we sowed the Renovator we had a snow three inches deep, which melted very fast, and we have had an unusually wet season.

On the 16th April, I sowed at same rate on five acres of stiff poor, stony land, lying on the north of a hill-side. Here a marked effect was observed on the wheat and young clover—this land was poor and neglected, yet the wheat was an average crop, no wheat yielding largely with us this year. It well paid on *this* piece of ground.

Third Experiment.—About one bushel on quarter of an acre of lawn was applied, and the grass was very indifferent, quite an eye-sore, where each year ashes, plaster. and other manuring had been applied to improve the grass. The day the fertilizer was applied a fine rain followed, and in ten days the grass was mown; upon the second mowing, the lawn presented a smooth, well set velvety turf.

Fourth Experiment.—Dropt in each hill of five acres of corn, half a handful of the Renovator; corn looks very promising. In the middle of the piece of ground 12 rows were left without any of the Renovator. From the time the corn came up until now, the difference in color and size was so great as to be remarkable as far as the eye could reach. There is not now quite so much differenee perceptible, but I think there are more and larger shoots on the manured than on the unmanured part.

These are all the facts coming under my experience in the use of it.

I am, gentlemen, yours, respectfully,

W. W. W. BOWIE.

AUGUST 2, 1850.

Messrs. Kettlewell & Davison:

Sirs—We have tried your Agricultural Salts alongside of ****** upon corn in the hill, and sowed up the furrows. The result of our experiments has rather been in favor of yours. My father not perceiving any difference, while upon my land, yours have surpassed ****** considerably in the hill, and equally as good, if not better, put on in the other manner. We have concluded to take from eighty to one hundred barrels. WM. J. SUDLER.

N. B. Address your letter to Sudlersville, Queen Anne's county, Md. W. J. S.

PRINCIPIO, Cecil Co. July 21, 1850.

John Kettleworll, Esq.

My Dear Sir—It has long been my wish that some reliable and enterprising gentlemen would enter into the manufacture or preparation of Chemical Salts, that would supersede the use of guano; an article, in the purchase of which, the farmer is continually subject to imposition, from the fact that a speculation is uniformly entered into by the dealers at about the season when it is well known the farmer must have it for his crops. And, further, his great liability at having an inferior article sold him.

I sowed your Renovator, broad-cast, at the rate of one barrel to the acre, on all my corn ground

the last spring—the result thus far has been very satisfactory indeed. The corn grew off luxuriantly from the start, and, notwithstanding the severe drought, it has not suffered, and the promise for the ultimate crop being heavy, is good. On one field which has not been ploughed for 25 years, and on which no other manure than the bbl. of Renovator to the acre has been applied, the corn though not so tall, has maintained a fine dark green color, and if the season is fair, it promises a very good crop. My opinion is, that if I desired a speedy improvement on a poor field, I would apply 1½ to 2 bbls. per acre. On improved fields one bbl. appears to me to be sufficient.

Sincerely and truly, yours, HY. STITES.

If you could send my 40 bbls. up this week I would be glad to have it.

Messrs. Kettlewell & Davison, Baltimore.

Gentlemen—After preparing the ground for wheat in the usual way, and putting the grain in with one of Pennock's Drills, we then applied your Renovator, at the rate of from one to two bbls. to the acre, according to the nature of the ground. This is not, in my opinion, the best mode of application, and, in future, we shall harrow it before seeding.

I presume my order for twenty or more barrels this fall will be a sufficient guarantee of my confidence of its utility. Very respectfully, your obedient servant, THOS. LUCAS.

ELVERTON, Balt. Co., Aug. 21, 1850.

ELKRIDGE, August 23d, 1850.

Dear Sirs—According to your request to give you a statement of the action of your Agricultural Salts on my land, I would mention that in the month of February last I applied as a top-dressing one barrel of the Salts to the acre on land of tolerable fertility, and I am satisfied that it accelerated the maturity of the grain, thereby saving it from the rust, and the straw was as vigorous, and the grain as plump as could be desired. The wheat was grown very late on corn ground, and ripened sooner than a fallow adjoining, sown at least two weeks sooner, which I attribute to the action of your Salts. Yours, very respectfully,

A. L. MACKEY.

To *Messrs. Kettlewell & Davison.*

WARRENTON, Va. Aug. 15, 1850.

Messrs. Kettlewell & Davison:

Dear Sirs—Yours dated on the 15th instant, is duly received, requesting some information respecting your Chemical Salts, ordered last April, and after getting my corn-land thoroughly ploughed and harrowed, I laid off the ground, four feet each way—I then had your Salts unpacked from barrels, and put out on a plank-floor, and thoroughly mashed all the lumps—then put back into the barrels and taken to the field, and by means of small baskets had a handful put in each hill where the ground was poorest. Some of the land was very thin indeed. I put about one barrel to the acre, after dropping a handful of the Salts in each hill; I had the corn dropped on the Salts, and then covered. My corn come up well, and that where the Salts was put, more particularly, and looked very well and grew much more luxuriant than that where there was no Salts. About the latter part of April and 1st of May, we had a dry spell of weather, which seemed to check the corn very much, and more particularly where the Salts was put, owing to their being planted in the lightest and porous chaffy ground. It was a piece of new pine land soil. We had a fine rain say about four weeks since, which seemed to bring about the corn very much. I think from what I can judge at this time, it has been of great benefit, and my impression is, that it will answer better for wheat and grass than corn, as it can better mix with the earth. I expect to visit Baltimore this fall, and by that time will be able to judge farther of its good effects.

I shall probably want several tons more. I have ordered 10 tons of guano for this fall. Will you please inform me what quantity of bone-dust is necessary to an acre of land which is not of the poorest, but such land as may be called third quality, and has a covering of light grass; also the price of the best bone-dust. I have some notion of making a trial of bone-dust, guano and chemical salts, to see which is the more lasting and the best manure. You can drop me a line on this subject at your leisure, and oblige yours, &c. GEO. E. YEATMAN.

EASTON, August 19, 1850.

Gentlemen—In conformity with the request contained in your letter of the 13th, I propose to give you all the information in my possession relative to the action of your Salts.

The field selected for experiment contains 22 acres, on seven of which I applied the Salts at the rate of two bbls. per acre, sowed by a careful hand immediately after seeding wheat, and harrowed it in with a heavy drag. This was the mode pursued in each experiment. On another seven acres I sowed them at the rate of 1½ bbls. to the acre; on the next seven a dressing of compost was given, composed of marsh and ashes. in the proportion of three of the former to one of the latter, at the rate of 200 bushels to the acre, and on one side, in front of the Salts, a strip of 20 feet in width left unmanured. I also left out a space sixteen feet wide in the centre of the first seven acres, to which no application of manure was made. On one half of the remaining acre I applied 125 lbs. guano intimately mixed with plaster and ploughed in, and on the other half one bbl. of your Salts. The wheat came up well, and though rather backward in the Spring, grew off finely, and promised a very fine crop, but it was smitten by the rust at the period when the grain was forming, and with the exception of the half acre guanoed was not worth cutting, I shall not thresh a head of it.

The best growth of straw was on the half acre just mentioned. Between the application of the Salts and the compost but little difference could be perceived—if any, in favor of the latter. During the spring, at different periods, I took two of

our more experienced farmers to see the wheat, and walked them over the cut of seven acres, in the centre of which no manure had been applied, without other remark than a request to point out any difference they might detect in the appearance of the wheat—they each paused on that particular spot, and remarked that the wheat was not so good on those rows. I had noted the difference myself, and was anxious to know if it would be observed by persons unacquainted with the experiment. On the other strip, left unmanured, the difference was still more striking. On a small space the Salts were applied at the rate of four barrels per acre, and here its effects were beautifully exhibited in a most luxuriant growth. Indeed, the difference between this spot and that where the 2 bbls. were applied was much greater than existed between the latter and the unmanured portion, so that I conclude that the Salts coniain highly fertilizing materials, but that the quantity generally applied (1½ to 2 barrels) is too small.

The land on which these experiments were tried is a heavy clay, known with us as "white oak" soil; the greater part resting on a sub-soil of red clay. It is considered our best wheat land, and when last in cultivation, produced 25 bushels per acre after corn. I regret, exceedingly, that the result of my experiments will furnish you with no positive information relative to the value of the Salts, for from the growth of straw nothing can be inferred with certainty. The clover looks remarkably well on every part of the field, and should anything occur in its growth worthy of note, I will not fail to communicate it if my life is spared. I am very glad to hear that you are making arrangements to have the soil analyzed at small expense. When your arrangements are completed be good enough to let me know. Enclosed, I send two small samples of wheat, No 1, is from the land dressed with guano; No. 2, from that where the Salts was applied. In the hope that you will pardon this hurried scrawl, and that I shall have the pleasure of seeing you at the Cattle Show this fall if not before,

I am very respectfuily, yours truly,

H. E. Bateman.

Messrs. Kettlewell & Davison.

Millington, Aug. 19, 1850.

Messrs Kettlewell & Davison:

Gent'emen—Your enquiry touching the mode and manner of application, and the benefit I have derived up to this period, from the use of your Agricultural Salts, as specified in your communication of the 12th of the present month, was received here by the due course of mail; the Salts were applied to the hill just before planting the corn, at the rate of one large table spoonful, or one hundred and fifty pounds to the acre. Just previous to flushing the land for the crop, I directed, and had spread, 50 bushels of Baltimore county lime to the acre, from the kilns of Messrs. Griscome & Burroughs, which has a high reputation for its beauty, strength and properties as a renovator of worn-out lands. I have this day carefully exmined the stock and ear as it is now standing; the stock of the corn where the salts were applied does not appear to be any larger than that where no Salts were used (on the same quality of land,) it will be difficult to determine what advantages are to be realized until such period as that of blading and cutting the tops is accomplished. I find on the other hand what may not be obtained by the Salts in regard to the size of stock will be fully realized in the ear, as it is decidedly larger than that where no application was made. I remembered, when too late to retrieve what had already been done, that you cautioned me against fresh spread caustic lime, as it might prove highly prejudicial to the action of the Salts.

In great haste, I remain yours, very respectfully,

Tho. Walker.

Baltimore, Aug. 13, 1850.

Messrs. Kettlewell & Davison:

My Dear Sirs—I have been selling your Chemical Salts for the last year, and I can say wherever I have sold it to the Farmers it *gives general satisfaction*—so they have reported to me.

Your obedient servant,

Arthur McCourt.

Balt. Co. Aug. 24th, 1850.

Messrs. Kettlewell & Davison:

Dear Sirs—In answer to your note of this date respecting the action of your Agricultural Salts purchased of you last spring, I have to say that I put on a field of 12 acres of oats, two bbls. to the acre, and on another of 25 acres 1 bbl. to the acre, and seeded both with clover. The oats were a fair crop for the season, and the clover looks extremely well: both fields I considered worn out, and I had but little hopes of making half a crop, and my opinion is that I would not have made more than half the crop I had, had I not used the salts. I am of the opinion that 2 bbls. to the acre is worth (cost considered,) twice as much as one bbl.—The Salts fully come up to my expectations.

Yours truly, J. Crosby.

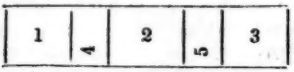
"Meadows," Balt. Co. Aug. 24th 1850.

Messrs. Kettlewell & Davison:

Dear Sirs:—Your letter just handed to me requesting a statement of the results of your "Agricultural Salts," also my mode of application, I take pleasure in answering.

Two pieces of ground, seeded August 20th, 1849, which had not been in cultivation by me for upwards of twenty years, and neither of which had ever had any manure of any kind on them, I had cleared of stones, &c, and by much trouble had them put in condition for a crop—one piece of three acres for Timothy, and one piece of two and a half acres for Timothy and Turnips; on this last mentioned piece, I had one land ten feet wide staked off through what was deemed the poorest part of it; the rest of the piece was well manured with perfectly decomposed manure from the barn yard; I then had one other

land staked off, ten feet wide, on the upper part of the piece; my lot as you will perceive is now composed of five parts as by figure, on No. 1, 2 and 3, in



addition to the manure I had the Salts put on at the rate of 1¼ barrels to the acre, on No. 4, there was nothing but the manure, on No. 5, I put 75 lbs. of the Salts, equal to three barrels to the acre; the season was favorable, the Turnips a fine crop; No. 4 was behind all the rest, and the turnips smaller. On No. 5, the Turnips were equal to any part of the field. The conclusion I have come to is this: that an acre of the poorest land I have is properly cleaned, and perfectly comminuted, that three barrels of the Salts will give, with good season, a fine crop of Turnips; and the ensuing harvest give, as it did to me this year, a fine crop of Timothy—*say* 2500 *lbs. to the acre.*

My second lot of three acres was so poor it had never produced me anything, though this piece of land was staked off ten feet wide, on which nothing was put, the Salts were put on the rest of the field at the rate of 1½ barrels to the acre; my manager thinks, and I have no doubt of it myself, that it yielded four tons of Timothy hay. The land on which there was no Salts was almost bare. On my Oats the effect of the Salts were very obvious, one land having no Salts on it, and running through the centre of the field, was not so high as those on either side by six inches, and did not stool so much, making the yield a third less. Although I have used it largely on my Corn, I am not prepared to say anything as to the result. You can use part or all of this communication as may suit your purpose.

The way in which I use the Salts is to plough the ground, harrow, then sow the Salts and harrow it in. I am so satisfied of their efficacy in a favorable season, that I tell my neighbors, as I told you, they cannot fail to act, unless they are not *made right.* Respectfully,

ROBERT DORSEY, of Edward.

LAUREL FACTORY, July 29, 1849.

Mr. John Kettlewell—Dear Sir: In reply to your communication, asking for my experience in the use of your Fertilizer, I have but time to say, that I have used it on grass, as a top dressing, and on corn, as an experiment, this spring, at the rate of 2 to 2½ barrels per acre, in both cases with as much effect, apparently, as where I used stable manure or ashes.

I am satisfied, so far, with the effects produced by it, and shall continue to apply it wherever I run short of my other manures.

Yours, very respectfully, H. CAPRON.

SILVER SPRING, July 22, 1849.

Dear Sir: I measured three acres of ground to make an experiment of the relative value of your renovating Salts, ashes and plaster, and Peruvian guano. I put five dollars worth of each on corn, giving a separate acre a broadcasting of your manure—another acre the ashes—the third acre the guano. The soil of each acre is as near alike as can be. As yet, it is impossible to say which has the race. The guano run ahead at first, but now, I think, it is neck and neck with the salts; the ashes and plaster, at the beginning behind both, is running up. It is impossible to say which wins until I shuck out the corn. I would bet on the salts. Your friend, F. P. BLAIR.

Dear Sir: I have no hesitation, on the contrary take great pleasure in affording you the result of my experiment of your Agricultural Renovating Salts, for the improvement of land. My experience is unquestionably and decidedly favorable. I applied it upon five acres of poor land, (which I planted in corn,) both broad-cast and in the hill, alongside of land which had been both limed and manured; and where your Renovator was used, I find the corn in every respect to be as good and flourishing, as it is upon better land that had been heavily manured upon a clover sod. I look upon your enterprise as highly important to the farming interests of the State, in thus affording them so cheap and valuable a manure, and can give no stronger evidence of my confidence in it, than by ordering five times the quantity I purchased of you last spring.

Very respectfully, your friend and ob't servt,

JOHN L. STANSBURY.

BALT. August 16th, 1849.

From a member of the Baltimore Bar.

BALTIMORE, July 18, 1849.

Dear Sir: In redemption of my promise made to you in the spring, when I purchased a ton of your "Renovator," it gives me pleasure to state that my expectations from its use has been fully realized. As directed, I applied on each hill of the corn immediately after the same had been planted, a small handful, and upon one or two parts of the field, where the soil had been almost entirely washed off, the "Renovator" at the rate of a barrel per acre, was sown broadcast and harrowed in before planting the corn. The corn where the "Renovator" has been used appears much better both in color and size, than where none has been used, though the land where none had been used is apparently much better than where the "Renovator" was used.

I consider your "Renovator" a valuable composition, and should my corn continue to improve as it has done, I shall be amply rewarded for the expense incurred. I shall certainly use some of your "Renovator" on my wheat this fall.

Yours, &c.

HOWARD DISTRICT, August 17, 1849.

John Kettlewell, Esq.—Dear Sir:

In reply to your favor now before me, I have to state, that having made a trial of your Fertilizer on potatoes and corn, I am much gratified with the result—being confident that where it has been applied the yield will be double, indepen-

dent of leaving the ground in a much better state than it was preparatory to my applying it, and, from the experiment I have made, believe it to be one of the most valuable manures now known; and, as an evidence of my opinion of its fertilizing qualities, you will please send me as early as convenient, ten barrels, which I was on the point of ordering when your favor came to hand. Nothing new. With respect your friend,

PETER GORMAN.

BALTIMORE COUNTY, 1849.

Dear Sir: I have no reluctance to repeat to you what I stated, in a personal interview, a few days ago, that my experiment with your Agricultural Renovator, has met my entire expectations, and that I look upon it as an enterprise deeply interesting to the Agricultural interests of the State. It is cheap in price, and in applying it upon corn, in comparison with guano, my experience gives it the preference. I can give you no better evidence of my faith in its qualities as a fertilizer of the soil, than in ordering, as I now do, five times the quantity I purchased from you in the spring. That time will confirm your opinion that it will give continued improvement to the land, I have an equal confidence. Yours, respectfully,

C. S. STANSBURY.

To *Messrs. Kettlewell & Davison:*

Gentlemen—In reply to your enquiry, how the experiment I made of your chemical Renovator resulted, I take pleasure in saying, far beyond my expectations. I sowed it broadcast a barrel to the acre, upon poor land, and upon an old sod that had not been ploughed for some years, and planted my corn upon the 12th of May. I repeat, the land was poor; but my corn, thus far, in appearance, has not only astonished myself, but promises a yield which has surprised all of the many who have seen it, the quality of the land taken into consideration; indeed, I know of none in my neighborhood that is better, without any regard to soil. It is scarcely necessary to say, from this demonstration—which I should like every farmer in the State to see—that my confidence in the fertilizing quality of your salts is stronger than in any manure I have ever tried.

Truly your friend, JOHN H. KAUFMAN.
Baltimore, August 27, 1849.

Doct. Wm. S. Morton, of Cumberland Co. who did not receive ten tons of our Renovator in time to test it upon his Pea crop, writes thus in reference to our plaister. "In your enterprise you have abundant cause of self-gratulation, from the fact, that you have emphatically entitled yourselves to rank among friends of the farmers, by the effectual arrangements which you have made to supply *Plaister*, incomparably superior both in quality, and the neatness and security with which it is put up, to anything which we in this region have ever before witnessed."

Our Renovator and Plaister can be delivered at Norfolk, Petersburg, Richmond and Frederick, Va. at about 12½ cents per bbl. freight.

UNFAVORABLE REPORTS.

We have a word to say in regard to the following failures. They could not be authenticated by names of more intelligence, honor, or better capacity of judgment.

We publish both sides of the question, because we feel the magnitude of the enterprise we have undertaken; and in its development we are searchers after *truth and improvement*. We ask judgment, and give the testimony complete. We have published every unfavorable report except one from Geo. Forbes, Esq., which was received too late for press. We now ask the intelligent farmer, if the experiment was of Lime, of Ashes, of Guano, or of Marl, embracing the same diversity of soil, and extent of country; to say nothing of the various modes of farming; would either of these manures presented a more uniform or successful result? Upon this point we ask reflection, and a considerate judgment. We again repeat what we have said elsewhere, that the farmer in looking to the result of our Renovator must not look to the stalk of the Corn or the straw of the Grain to find its value, but to the ear of the one, and the grain of the other.

August 23, 1850.

MESSRS. KETTLEWELL & DAVISON—

Gentlemen:—Your favor of the 12th instant, I did not receive in time to enable me to comply with your request. The result of the experiments I have made with your Agricultural Salts, I regret to state have not been as favorable as I expected. I applied last fall on 7 acres of fallow, 8 barrels of salts raked in with the wheat; the crop was considerably better than I have taken from the same land after a crop of corn; whether the improvement in the crop was caused by the salts, or the difference in the cultivation of the land, I am not able to say. I used some as a top-dressing in January, applying rather more than a barrel per acre; it had not the least effect on wheat; the young clover is also much inferior to that on similar soil, on which I used about ten bushels of bone-dust per acre. The land on which I used about 200 lbs. Guano, produced me more straw and about one-sixth more grain than I got from the land which has been top-dressed with the salts. I tried it also on corn planted in a piece of swamp land, applying about a handful to the hill when planted; the corn came up quick and looked well for a while, the heavy rains in May and June flooded the land, and the corn was much injured, and will produce not more than half of a crop; I have no doubt much of the salts was washed away from the hill; under those circumstances I shall not consider this as a fair test of the virtue of the salts. Sould I again use your salts for wheat, I will prefer raking it in when the wheat is seeded. In great haste, yours, respectfully,

JOHN HAMILTON.

EASTON, August 16, 1850.

Messrs. Kettlewell & Davison—Gentlemen: I am very sorry that it is not in my power to give an accurate account of practical results from the application of your manure. The field, to portions of which the application was made, is, unfortunately so cut up, with irregular ditches, that I could not find in it any one portion having parallel sides.

It was my intention to have applied it in regular strips of such width, that a row of shocks could have been made in each, and I could thus have compared the products from equal quantities of land, but the reason just stated prevented me from effecting my design with that accuracy which would be conclusive as to what Mr. * * * * * * * would call "a good practical result."

When I applied it at the rate of one barrel to the acre, upon the fresh ground immediately after ploughing in the wheat, there was a slight difference perceptible to the eye.

Where I applied it, ploughed in with the wheat at the same rate, the crop was light, but evidently owing to the bad condition of the land, being very low, and overrun with blue grass. On very light and thin land, when the rate of application was a little under two barrels, there seemed to be a slight improvement in growth, but I could perceive no difference in favor of harrowing it in after the plough. This fact is, no doubt, owing to the frequent heavy rains which soon followed, and carried the soluble portions into the well pulverized soil. I should say on the whole, judging by appearances, (a very unsafe criterion either way,) that in my present crop of wheat, I have not been benefitted to the amount of the outlay.

Had I found a single rectangular cut in my field, I should certainly have given you, as I promised, the accurate result in acres, bushels and pounds. Your idea about analysis is a good one, and with persevering caution, practical benefit will no doubt arise to yourself and others.

Very respectfully, yours,

THOS. R. HOLLYDAY.

LANGFORD FARM, Kent Co., Aug. 19, 1850.

Messrs. Kettlewell & Davison:

Dear Sirs—In answer to your enquiry respecting the action of the Agricultural Salts on my soil, I have only to say, that I have not as yet discovered any benefit whatever resulting from the use of them.

Respectfully, yours, &c.

D. JESSOP.

LEONARD TOWN, Aug. 21, 1850.

Gentlemen—I received your note of the 13th inst. yesterday, asking an account of the result of my application of your Agricultural Salts made by me on my farm.

I am sorry that I cannot give you a favorable report thereof, as well on account of your interest as of my own. But so far as my experience went, I am bound to disapprove its use. My application of it was on fallow, which had been limed about six years ago with one hundred bushels of shell lime to the acre. I applied on it a barrel of your Salts to the acre. The land was ploughed in August and September, 1849, and was in clover, which was turned under.

After putting in the wheat with the plough, I applied the Salts, and run the harrow over the land, when I thought the work well done.

I have not threshed out my wheat yet, and cannot therefore say its yield, but the growth was small, and so also the head.

One wheat land of the whole field of 18 acres was left undressed with the Salts, and had not sticks been planted to designate it, none could ever have pointed it out. There was certainly no improvement where the Salts were applied.

Your obedient servant, G. COMBS.

Messrs. Kettlewell & Davison, Baltimore.

March 1

CHICKERING'S PIANOS.

THE Subscriber is *Sole Agent in Baltimore*, for the sale of CHICKERING'S CELEBRATED IRON FRAMED GRAND AND SQUARE PIANO FORTES, and is constantly receiving supplies from the factory in Boston, which are sold at the same prices as charged by Mr. Chickering.

Chickering's Pianos are unquestionably the best Instruments manufactured in the United States. In regard to superior quality of tone, touch, durability, and all the essential qualities of a Piano, they are admitted by the most eminent Pianists to be equal to Erard's, of Paris, or Broadwood's, of London.—Although there are several factories in Boston and New York of high reputation, Mr. Chickering undoubtedly stands at the head, possessing eminent talent, skill, untiring industry and experience of some 35 years as a manufacturer of pianos, with abundant means to enable him to carry out his plans in producing the very best instruments.

Orders from the country, entrusted to the subscriber, either for Pianos, Music, or any article in his line of business, will be faithfully executed. F. D. BENTEEN,

jan1 6t* 181 Baltimore street.

SEEDS, TREES, PLANTS, &c.

JOHN FEAST,

Florist and Seedsman,

279 *W. Lexington st., cor. of Pine, Balto.*

Offers for sale on the most reasonable terms, a large collection of GREENHOUSE PLANTS, as Camellias, Roses, Azaleas, Geraniums, Fuchias, and new Verbenas; also the newest and best Dahlias, of superior beauty and form, which have taken prizes wherever shown last year. Also, FRUIT and ORNAMENTAL TREES and PLANTS, Shrubbery, Bulbous Roots, Herbaceous Plants, and Creepers, Grape Vines of the best sorts, Sea Kale Roots, Victoria Rhubarb, Cabbage, Cauliflower, Brocoli, Tomatoes, Egg Plants, and all others in season for planting.

Cut Flowers for parties, or *Boquets*, to order.

He has always on hand a choice stock of GARDEN and FLOWER SEEDS, imported and home growth, which will be found, on trial, to be genuine—and he invites those wanting seeds to call on him, where they may depend on obtaining articles in which they will meet with no disappointment, and on the lowest terms for cash or satisfactory references

☞ *Gardeners furnished* to those wanting them. Feb. 1 4t

DUVALL & IGLEHART,

GROCERS AND COMMISSION MERCHANTS,

No. 78 LIGHT STREET WHARF,

Invite the attention of their friends, and the public generally, to their large and general assortment of GROCERIES, embracing every *article* in that line of business, and which they will sell upon pleasing and liberal terms, and at the lowest prices. Any one in want of any article in their line will find it to their advantage to give them a call. *They will also pay particular attention to the sale of all kinds of produce.*

GROUND CHARCOAL.—An excellent article for Manuring Peach and other Fruit Trees, and for other purposes—Price, $1.50 per barrel.

PREPARED GUANO.—This cheap and durable Fertilizer, at $20 per ton, will be found invaluable, if used as a top dressing generally. It kills the fly, insects, and the mole, and prevents potatoe and all other rot, rust and mildew.—For sale by the only manufacturer,

CHAS. A. KENTISH, 40 Peck Slip, New York City.

Jan. 1-3t

IMPORTANT TO FARMERS

GRAIN FANS, OR WIND MILLS.

PERSONS desirous of obtaining the best Grain Fan in the market, are informed that Bamborough's continues to stand at the head of the list, and to set all competition at defiance. At the various exhibitions in Maryland, Delaware, Pennsylvania and New Jersey, last fall, *Bamborough's Fan* TOOK THE FIRST PREMIUM EVERY TIME, (as it had done on every other occasion) though the most celebrated Fans from New York, New England and elsewhere, were tried against it.

Thirty-five First Premiums and Five Silver Medals were awarded to this Fan within the last few years, and more than seven thousand of them have been sold to the best farmers of the Middle and Southern States. These facts are sufficient to show that in the opinion of those best qualified to judge, this Fan is superior to all others. It is claimed that it will do more and better work, with less power, than any other Fan ever invented, as the facts above stated abundantly show. No one should buy an inferior article when a better is to be had.

"The first that arrested our attention was Bamborough's Grain Fan, which has been improved to such a degree, that it now separates, in the most beautiful manner, the wheat from every other substance. Mr. Bamborough produced wheat mixed with cockel, chess, clover and timothy seed, which the Fan separated in the most complete and surprising manner, depositing the cockel and chess in one apartment, the "tailings" in another, and the timothy and clover seed each in different boxes—leaving the Wheat pure. A greater triumph in an agricultural implement we never saw."

The editors of the Philadelphia Ledger, in speaking of the Philadelphia County Agricultural Fair and Cattle Show, held Oct. 17 and 18, 1850, say:

"Mr. Bamborough exhibits several of his Patent Fans, which are said by those who have used them to be more effective than any thing of the kind ever introduced."

If necessary, he can give 7000 recommendations from farmers in Lancaster, Berks, Dauphin, Cumberland, Perry, Adams, York, Chester, Delaware, Philadelphia, Montgomery, Franklin and Bucks Counties—these 12 counties in Pa. Also, in Maryland: Carrol, Baltimore, Prince George's, Frederick, Washington, Alleghany, Harford, Cecil, Kent, Talbot and Queen Anne's—these 11 counties in Md. And also in New Castle county, Delaware; Kent, do; Sussex, do. Also 12 or 15 counties in New Jersey. Also some in Virginia and North Carolina.

You can screen twice with one operation by using the short or extra screen, and take all the cockle and cheat out of your seed. If it is half cockle and cheat, I can take all out with my Fan, and it will save 100 per cent in time, and clean cleaner than any other Grain Fan in the United States.

Persons, Farmers, Planters or Agricultural men, that want to get the best Grain or Winnowing Mills, are invited to call and examine his before purchasing elsewhere. I will WARRANT my Patent Fans, manufactured by me, to exceed any others in the United States, and save 100 per cent in labor. Old Fans repaired. Screenery of different kinds, and wire of different numbers, for sale cheap for cash.

I return my sincere thanks to a generous public for the liberal patronage I have received for 19 years past, and hope to receive a continuation. I have made a great improvement in my Fans within 4 years. My Fans this year will run lighter than ever.

Be cautious who you buy of—as my Fans are so highly approved of for their superiority, has induced some men to infringe on my patent—the law will be put in force against such. Mind and get the right Fan. My Fans all have my name on—J. Bamborough's Latest Improved, patented March 20, 1847, for 35 Premiums warranted. Orders thankfully received from Virginia, North or South Carolina, and other States, and Fans forwarded on the shortest notice—wholesale or retail.

If you want to get the genuine Fan or Fans, direct to me, Lancaster City, Pa. They can also be had of Mr. David Landreth, at his Seed Store, in Chesnut street, near 3d, Philadelphia; or at my shop, in South Trenton, New Jersey; or of Mr. Elgin Russel, near Petersburg, Va; or of Charles B. Calvert, Esq., Washington City; or of Ezra Whitman, Jr. & Co. of Baltimore, who have bought the exclusive right for the State of Maryland.

N. B. Be cautious and not buy any Fans purporting to be mine, manufactured in the State of Delaware, for I have not sold a right to any man in that State.

☞Agents wanted to sell rights.

mar 1-2t JAMES BAMBOROUGH, Patentee.

FOR SALE—A superb BOAR of the Dutchess breed, which has won such unqualified admiration in the hands of Jno. Wilkinson, Esq. He is of great size, white in color, and two years and a half old. His owner has bred from him as long as it is desirable to breed without crossing. Price $50. Enquire of S. SANDS, American Farmer office. mar. 1-1t

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MANAGER'S SITUATION—Is wanted by a man who has been a number of years conducting an improved farm near this city—His wife will be willing to attend the dairy and poultry, and her skill is well attested. Apply at this office. Mar. 1-1t.

WILLIAM HARRIS,

GUN, RIFLE AND PISTOL MANUFACTURER, No. 65 South st., 1 door from Pratt st., Baltimore.

W. H. keeps constantly on hand a large assortment of Bird and Ducking Guns, (double and single barrel;) Six barrelled Revolvers; Rifles made to order; Dupont's Gunpowder; Powder Flasks; Bird Bags; Shot Belts and Pouches, and many other articles necessary for Sportsmen. Repairing done at the shortest notice, and with neatness. Dec. 1-6m

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GROUND PLASTER.

THE subscriber respectfully informs the Farmers and Planters that he is now receiving a large and selected lot of an extra quality of Lump Gypsum, direct from particular mines, (the purity of which he has had tested by various analyses) from which he is manufacturing a superior article of Ground Plaster, warranted pure, and each barrel of full weight and in good shipping order—marked with his own name. For sale on the most favorable terms.

WM. A. DUNNINGTON,
Steam Plaster Mill, G. Hughes st., on the Basin.

Orders received at CAPT. ASA NEEDHAM'S STORE, No. 104 Light street wharf. Septl tf

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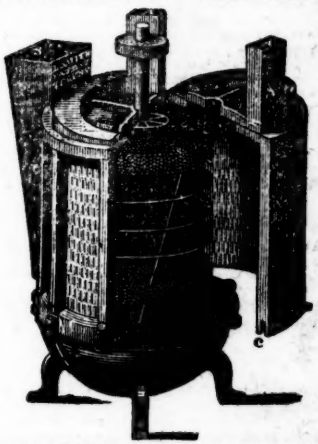
LEONRD SMITH'S
PATENT VENTILATING SMUT MACHINE.



THIS MACHINE received a Gold Medal from the American Institute, New York, at its last Exhibition; a Silver Medal from the N. Y. State Agricultural Society, at its Exhibition at Syracuse in September last, and a Diploma from the Maryland State Agricultural Society, at its Exhibition in the city of Baltimore, in October last, and is highly approved of wherever it has been tried. It can be seen in operation at Geo. Page's Wind Mill, in Washington city; Jas. W. Osborne, Robertson's Mills, in Georgetown; and at Samuel Canby's Mills, at Ellicott's Mills, Md.; at Wm. B. Thomas', Spring Garden Mills, Philadelphia—where persons wishing to examine it can be satisfied of its utility. Orders for Machines will be promptly attended to, if addressed to

mar1-6t* LEONARD SMITH, Troy, N. Y.

BONE-DUST AND POUDRETTE ESTABLISHMENT.
On Harris' Creek, at Canton, Baltimore.

THOMAS BAYNES, continues the manufacture of *POUDRETTE*, and is prepared to supply any orders for the same—The article manufactured by him, will be found probably more valuable than any made in the Eastern cities. His *BONE-DUST* weighs from 55 to 60 lbs. to the bushel, and is as fine as any article sold in this market. Price of Bone Dust, 55 cents per bushel. Poudrette, $1.12 per barrel. Persons sending their carts or wagons to the factory, can obtain the Poudrette at 90 cents per bushel.

Orders left with S. SANDS, at the office of the American Farmer, will be attended to.

DR. HIGGINS,
State Agricultural Chemist,

RESPECTFULLY informs the citizens of the Gubernatorial District, that he has permanently located his LABORATORY, at No. 78 N. EUTAW STREET. The different neighborhoods in the several counties will be visited as heretofore, and the usual Lectures delivered, of which due notice will be given.

It must be perfectly manifest to every reflecting mind, that the great waste of time, and destruction of valuable and delicate Apparatus and Reagents attendant on the frequent repacking and removal of the contents of a Laboratory, afford a good reason for its establishment in the most accessible position, and the superior facilities afforded by its permanent location will prevent the *apparent* neglect of samples that has sometimes necessarily occurred in removing the Laboratory from place to place. The examination of the specimens of soils until further notice, will be confined to those from Howard District. Marls and Lime stones will be examined from any part of the State, or from any source whence they can be used in the State.

Persons sending specimens of soil will take it from the top to the depth of cultivation so as to give an average specimen of the variety of soil to be improved.

Dig a hole with a *clean* spade through the surface soil, and take a slice of the soil of uniform thickness from the top to the bottom of the hole; do this in several different places on the *same* kind of soil—mix the several samples, wrap or pack them up carefully and send them as above. The name and locality should be distinctly written on the several specimens, the productiveness, situation, and indeed every fact in relation to the same should be communicated.

Mr. S. Sands, of the American Farmer, has kindly consented to receive specimens intended for examination.

Having received numerous communications from persons out of, and many solicitations from persons within the State to make examinations of certain things not included in the line of my duty, for a fee, which in no case I could receive, I now inform the public that I will have examinations made of *all substances*, whatsoever, and be responsible for their correctness on proper compensation being made. Feb. 1.

PERUVIAN GUANO,
Government Importation,

NOW discharging from ship "Albany," direct from the Islands—for sale in quantities to suit purchasers.

I have in store superior new crop CLOVER SEED.
Do do TIMOTHY do
Do do ORCHARD GRASS do
Do do HERDS do do

Together with every variety of *FIELD* and *GARDEN SEEDS.*

The attention of farmers is called to my assortment of Farm and Garden Implements and Tools, which they will find as complete as is offered in any Agricultural Warehouse in the United States. FITZHUGH COYLE,
National Agricultural and Seed Warehouse,
Feb. 1-2t 7th street, Washington City.

BONE DUST.

THE subscriber will furnish ground Bones, warranted free from every mixture, at 50 cents per bushel.—Also a second quality article, composed in part of Bones, and in part of Flesh of Animals, being a quick and powerful fertilizer, at 35 cts. per bushel.—Col. W. W. W. Bowie, the well known "Patuxent Planter," who receives his supply of bones from my Factory, says that the "bone dust at 50 cts. per bushel, was the best I ever saw; that at 35 cts. was very fair for the price."—Orders may be left at the "American Farmer" office directed to me, or at the Factory below the Race Course, Canton, near Baltimore, will meet prompt attention.
Feb. 1-3t* JOSHUA HORNER.

LIME—LIME.

THE undersigned having purchased of E. J. Cooper the most extensive Lime Burning Establishment in the State, is now prepared to supply Agricultural and Building LIME, of superior quality, to farmers and others, on accommodating terms, from his Yard, at the *City Block*, or delivered at the several landings on the Chesapeake Bay and its tributaries, and pledges himself by strict attention and punctuality, and a determination to do justice, to merit a liberal share of patronage. Any orders addressed to him through the Baltimore Post Office, or left with C. W. Burgess & Co., No. 60 South street, one door above Pratt, will be promptly attended to.
Feb. 1-1y* JAMES L. SUTTON.

IRON WIRE.

500 BUNDLES IRON WIRE, including all numbers, suitable for Fencing, for sale by
E. L. PARKER CO.
mar1-6t Cor. Calvert and Lombard streets.

DEVON BULL FOR SALE.—He will weigh over 600 lbs. net, is 3 years old, and will compare favorably with his stock. For further particulars apply to S. Sands, office American Farmer.

Those having blooded stock to dispose of, will facilitate sales, by leaving a description thereof, and prices, with the editor of this paper. mar 1-1t

FOR SALE.—Thorough bred Durham Cattle and Grades.
" " Alderney " "
" " Ayrshires.
South Down Sheep.
Oxfordshire do.
Poultry of the various breeds.
Swine, &c. &c.

Apply to AARON CLEMENT, Agent for the purchase and sale of improved stock.
Philadelphia, Jan. 1850. Jan. 1-2t

New York Agricultural Warehouse and Seed Store.

A. B. ALLEN & CO., 189 & 191 WATER STREET, NEW YORK, have constantly on hand, the most extensive assortment of the best and latest Improved Agricultural and Horticultural Implements, and Field and Garden Seeds ever offered for sale in the United States, embracing every Implement, Machine, or Seed desirable for the Planter, Farmer, or Gardener. Also, Guano, Bone Dust, Poudrette Plaster, &c. Feb. 1-3t

BONE MILLS.

The subscriber is now manufacturing MILLS for the grinding of Bones, which he believes are better for the purpose than any other now in use—they will grind 300 to 400 bushels dry bones per day—They can be propelled by horse or other power—Price $150. For further particulars apply to the subscriber at his manufactory at Ellicott's Mills, Howard Dis. Md. where the mill can be seen in operation.
Jan 1-3t GEORGE POE.

AGENCY FOR THE PURCHASE AND SALE OF IMPROVED STOCK.—Stock Cattle of the different breeds, Sheep, Swine, Poultry, &c. purchased to order and carefully shipped to any part of the United States—for which a reasonable commission will be charged.

All letters, post paid, will be promptly attended to. Address
AARON CLEMENT,
Septl Cedar st., above 9th, Philadelphia.

AGRICULTURAL IMPLEMENTS.—LABOR SAVING MACHINERY.—*GEORGE PAGE*, Machinist & Manufacturer, Baltimore st. West of Schroeder st. Baltimore, is now prepared to supply Agriculturists and all others in want of Agricultural and Labor-saving MACHINERY, with any thing in his line. He can furnish Portable Saw Mills to go by steam, horse or water power; Lumber Wheels; Horse Powers of various sizes, ranging in price from $85 to $200, and each simple, strong and powerful. His *Horse Power & Thrashing Machine*, he is prepared to supply at the low price of $125 complete; the Thrashing Machines without the horse power, according to size, at $30, 40, 65 and $75; Improved Seed and Corn Planter Portable Tobacco Press; Portable Grist Mills complete, $165

A. E. WARNER, No. 10 N. Gay st.

MANUFACTURER OF SILVER WARE, FINE GOLD JEWELRY, and importer of BEST SILVER WARE, FANCY ARTICLES, &c. would respectfully invite the attention of those in want of any of the above articles, that he keeps always on hand, and makes to order, every variety of Silver Ware, fine Gold Jewelry, and best quality Silver Plated Ware, which he will sell on the most accommodating terms. Feb. 1-tf

BOOKBINDING.

WILLIAM C. LYCETT, No. 125 Baltimore-st.,
Opposite the American Farmer office,

WILL execute all orders in the above business with promptness, in a neat and substantial manner, and in every variety of style, in full or half bound Tur. Morocco, Russia, Calf, Sheep or Muslin at the lowest possible rates, such as Bibles, Magazines, Music and old Books carefully mended or re-bound. Feb. 1-ecly

A. G. MOTT,
AGRICULTURAL IMPLEMENT MANUFACTURER,
No. 38 *Ensor street*, near the Belair Market, Baltimore. Plows, Cultivators, Harrows, Wheat Fans, Straw Cutters, Grain Cradles, and all of the best and most approved Agricultural Implements in use.

☞ AGENT for the celebrated N. York Wiley and Empire Plow Castings. mar 1

AT THE LATE AGRICULTURAL FAIRS, held in this State, the following *PREMIUMS* were awarded to

ROBERT SINCLAIR, JR. & CO., viz:

By the Md. State Agr. Society, held near this city,

The First Premium "For the *Largest* and *Best Display* of the most Useful and Valuable Agricultural Implements,"	$30
Sweep Horse Power,	8
Corn and Cob Crusher,	5
Vegetable Cutter—Vertical,	2
Drill Barrow,	4
Straw and Hay Cutter,	4
Grain Cradle,	2
Ox Yoke,	2
Expanding and Hinge Harrow,	4
One horse Seed Plow,	5

Again, by the Prince George Agricultural Society,

For the Largest and Best Display of Agricultural Implements, $10

☞ No other premium in the Implement Department was offered by this society; our DOMESTIC GRIST MILL, however, was publicly noticed as possessing superior merit.

Also, by the Talbot Co. Agricultural Society,

For the best Domestic Grist Mill,	$4
For the best Sweep Horse Power,	5
*For the best Wheat Drill,	4
For the best Corn and Seed Drill,	2
For the best Corn Sheller,	3
For the best two horse Plow,	6
For the best Gang or 3 furrow Plow,	4
For the best Cultivator,	3
For the best Harrow,	2
For the best Straw Cutter,	2
For the best Cylindrical Straw Cutter, with Corn-stalk Grinders or Lacerators attached, being a combined Machine,	3
For the best Seed Wheat Screen,	3
For the best Clover Huller,	3
For the best Grain Cradle,	1
For the best Attachment for the Plow, for Sub-soiling,	1
	$122

*This award is particularly flattering, our Wheat Drill having contended against four of the best Drills, from Delaware, Pennsylvania and N. York. The same may be said of the entire Talbot Co. award, the farmers of that part of Maryland being noted for superior skill in the management of agricultural machinery, and its quality as regards workmanship and capacity.

The large assortment of Plows and valuable Agricultural Machinery for sale in this city, renders it unnecessary for Southern planters to go beyond this city for their supplies.

R. SINCLAIR, JR. & CO.,
Proprietors of the *Oldest and most extensive Agricultural House* in the U. States,
Mar. 1 No. 58, 60 and 62 Light st., North of Pratt.

POUDRETTE AND COAL.

POUDRETTE, in barrels, at $1.25 to $2 per bbl. Pulverized Bituminous COAL, at $1.50 per do. For sale in any quantity to suit purchasers, by

WILLIAM CHILD,
mar 1 2t* No. 78 South street, Bowly's wharf.

DRAINING TILE.

THE undersigned having purchased the right and Machine for the manufacture of DRAINING TILE, invented by the late Mr. Lovel, of Delaware, would respectfully inform farmers, planters and others, that they will be ready to supply any quantity of the Tile as early in the spring as the weather will permit the working of the clay. They will be for sale at the brick yard at $15 per thousand—the lengths of the Tile will be 12 inches. Addres SAM'L. SANDS, or

JOHN KETTLEWELL,
mar 1 tf Baltimore, Md.

Oil Vitriol, or Sulphuric Acid.

THE undersigned, being largely engaged in the Manufacture of *Oil of Vitriol*, is prepared to furnish it to farmers for *dissolving bones*, put up in strong Carboys, at lowest price for cash or town acceptances.

P. S CHAPPELL.
Feb. 1-tf. No. 158 Lombard street.

C. H. DRURY, *Hollingsworth street corner of Pratt—Head of the Basin*—having completed his establishment with Foundry connected, for the making his own Castings, is prepared to furnish all varieties of *AGRICULTURAL IMPLEMENTS* and *CASTINGS*, made to pattern of the best material.

The following is a list of PLOWS kept constantly on hand: Davis, of the different numbers, for wrought and cast shears, S. & M., Chenoweth, Wildy, 2 and 3 furrow, No. 0, Hill side, No. 1 and 3 Connecticut—Beach Improved or Posey Plow, with common Davis cast shear—Self-sharpener or wrought shear—Corn Cultivators, plain and expanding—Tobacco do.—Wheat Fans—Corn shellers with double hopper—Old Vertical and Virginia sheller—Harrows—superior Pennsylvania made Grain Cradles—Revolving Horse Rakes—Cylindrical straw Cutters, &c. &c. Horse Power *GRIST MILLS*, a very useful and saving article, and coming into general use. *HORSE POWER AND THRESHING MACHINES*, of these I need not say any thing, as wherever they have been in use any time, they are preferred to all others.

C. H. D. will this year make a smaller size Power & Thresher. (price of Power, $100, Thresher, $50, Band, $10, or when taken together, complete, $150 cash.) Persons in want of Implements made of the best material, and put together in the strongest and best manner to answer the purpose for which they are intended, are invited to call on the subscriber. jel

Report of Dr. James Higgins,

STATE AGRICULTURAL CHEMIST.

[*Continued from Page* 149, *No.* 4.]

LIGHT SANDY SOILS.

These soils are characterised by their coarse, gritty texture, their porosity, their white color and their barrenness. Sometimes the sand in them is brownish from the presence of iron. Their greatest defect is mechanical. They are deficient in clay and iron, and their sand is too coarse to absorb much, if anything, from the atmosphere.

Their chemical defects are lime, magnesia, the phosphates; these substances, though present, are not in a condition to be used by plants.

They should be treated with compost, made of vegetable matter of any kind, such as scrapings from the woods, the *clearings* out of ditches, &c., with any of the varieties of lime containing magnesia. Gypsum should always be sown on these lands when not in cultivation, and as large a crop of grass as possible suffered to grow on them, unmolested by cattle. When this decays, it will dissolve much of the mineral matter in the soil, that otherwise would not be taken up by plants. The compost manure, recommended above, supplying lime and magnesia, would act in the same manner. If the magnesian lime be applied by itself, not more than twenty bushels per acre should be applied at one time.

This should be done in the fall or winter preceding the crop to be tilled.

It should be spread on the surface, for in these porous soils the rain will carry down the lime into the soil, distributing it very equally through it. As these soils cannot absorb ammonia well, that form of guano containing the largest amount of it, should be preferred for them. When the bone dust is applied, it should be done immediately before the crop is planted. Gypsum should always be used on these lands.

One of the best means for the improvement of this class of soils is by crops of *peas*, and the common *lady pea*, is better for this purpose than all others. The ground intended for their use, should be ploughed up in April or May, and the peas harrowed in about the middle of the latter month, or first of June, by means of a light spike toothed harrow. In the fall the peas should be gathered from the vines which will pay as well as any other crop on these lands. The succeeding year they will bring at least thirty per cent more of corn than if it had not been cultivated in this way. There are soils of this kind near Worton Point, in Kent county, and also on the Chester river. They are found in the neighborhood of Sudlersville, in Queen Anne's, extending on the Chester river for some distance below the Chestertown bridge, and reaching out into the country, until they become gradually blended with the red and yellow clay lands; they are found also in Talbot, bordering on the Choptank, and they prevail very much in Carolina county; in the upper part of the middle districts in Dorchester county, on the Choptank, above Cambridge, to the Delaware line; and in the upper part of Somerset, and that part of Worcester called the Forest. They are also found east of the Pocomoke, below Snow Hill, extending a few miles above it, until they meet with the yellow and red clay lands of Quepongo and Berlin.

The above compose the most marked varieties of soil found in the first gubernatorial district. To describe all which occur, would swell the report to an unreasonable length. The sub-varieties are very numerous, and as far as opportunity permitted, their characteristics were examined, their deficiences determined, and the manures and cultivation best adapted to them, were made known by the means pointed out by the law.

The analysis of all kinds made of soil, exceed one hundred and fifty in number, but as their publication would subserve no practical benefit, I have not included them in this report.

The owners of the soils will give me, in the course of a few years, the result of their experiments, which will form a collection of the most valuable facts yet given to the art or science of Agriculture.

I have adverted to the variety and richness of the marls of some parts of the Eastern Shore. These are comprised under two general classes, viz: the green sand marl and shell marl. These are the terms applied to the two varieties on the Shore, by which all there will readily understand my meaning.

THE GREEN SAND, OR JERSEY MARL,

Is found in large deposites on the head of Sassafras in Kent county; on the Sassafras river, in Cecil; on the branches of the Great and Little Bohemia river; and in many other localities in the lower part of Cecil. A bed of it is found also below Chestertown, near the Chester river, but evidently not in its original position. Another bed, to the thickness of about eighteen inches, is found overlaying the very latest deposite in Talbot, at the head of Wye, on the land of Mr. Thomas Hopkins. This is also out of place, having been transported here by a current of water at some distant period. The green sand to which I refer, owes its value to the presence of potash. Sometimes, however, it contains carbonate of lime, and occasionally some sulphate of lime, (gypsum,) formed by the decomposition of the sulphuret of iron, and of carbonate of lime, furnished by shells.

It is by no means to be taken as granted, that all sands which are colored green, possess fertilizing properties. Their color is due to the presence of iron, and not of potash or lime. They may, and sometimes do, have a bright green color, and yet have not enough of either of these substances to be of the smallest value as fertilizing agents. The test of value recommended by Professor Rogers, in his geological survey of New Jersey, that of a green stain made by sand on white paper, is not correct; though it was also mentioned in a report on the geology of Virginia as an unerring mark, and adopted by the lamented Professor Ducatel of this State. The green color of this marl is caused by iron, and not by potash. It is true, that when potash is present in the sand, the green stain will be made, but it is equally true, that it will be made if no potash is present; hence it is, by no means, an "unerring test" of the value of this kind of sand, and, indeed, no test at all. The only means to determine the quantity of potash in green sand, is a chemical analysis made by an *experienced practical chemist.* Its analysis is complicated and difficult, and liable to many sources of error. No confidence should be placed in any estimate of its worth, that is not based on a chemical analysis made by an experienced hand. This marl is sometimes found in large grains, sometimes the grains are very small, and the mass of it is very close and compact, the color is sometimes a bright green, which, on exposure to the air, becomes a dusky red, from the per oxidation of the iron. Frequently it is of a dull green, approaching to black. No indication of its value, however, is afforded by its external appearance.

(To be continued.)

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